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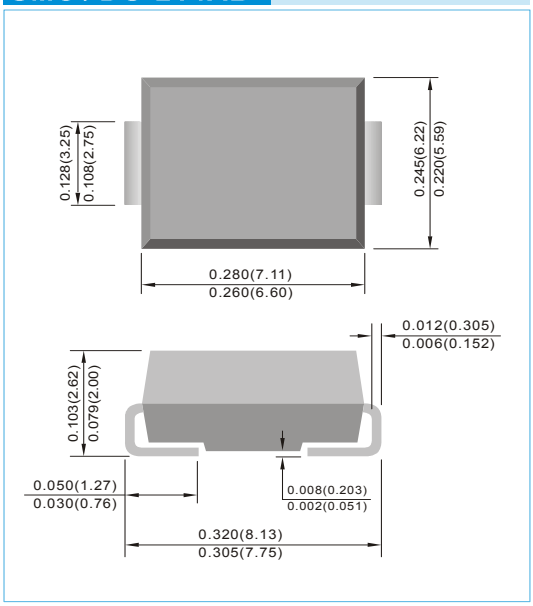
1.5SMC SERIES

GLASS PASSIVATED JUNCTION TRANSIENT VOLTAGE SUPPRESSOR PEAK PULSE POWER 1500 Watts

BREAK DOWN VOLTAGE | **6.8 to 250 Volts**

SMC / DO-214AB Unit : inch(mm)

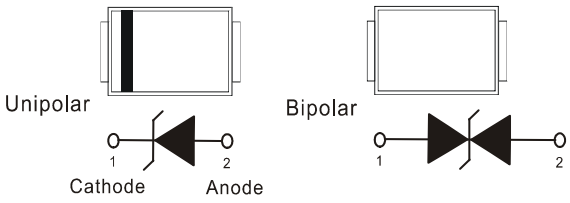


FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Glass passivated chip junction in SMC/DO-214AB package
- 1500W surge capability at 1.0ms
- Excellent clamping capability
- Low zener impedance
- Fast response time: typically less than 1.0 ps from 0 volts to BV min
- High temperature soldering guaranteed: 260°C/10 seconds/.375" ,(9.5mm) lead length/5lbs., (2.3kg) tension
- Lead free in comply with EU RoHS 2011/65/EU directives
- Green molding compound as per IEC61249 Std. . (Halogen Free)

MECHANICAL DATA

- Case: JEDEC SMC/DO-214AB molded plastic
- Terminals: Axial leads, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.007 ounce, 0.021 gram



DEVICES FOR BIPOLAR APPLICATIONS

For Bidirectional use C or CA Suffix for types 1.5SMC6.8 thru types 1.5SMC250.
Electrical characteristics apply in both directions.

MAXIMUM RATINGS AND CHARACTERISTICS

Rating at 25°Ca mbient temperature unless otherwise specified.

Rating	Symbol	Value	Units
Peak Power Dissipation at T_A=25°C, T_P=1ms (Notes 1)	P_{PP}	1500	Watts
Typical Thermal Resistance Junction to Air (Notes 2)	$R_{\theta JA}$	50	°C / W
Peak Pulse Current on 10/1000μs waveform (Notes 1)	I_{PPM}	see Table	Amps
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JECED Method) (Notes 3)	I_{FSM}	200	Amps
Operating Junction and Storage Temperature Range	T_J,T_{STG}	-55 to +150	°C

NOTES:

1. Non-repetitive current pulse, per Fig. 3 and derated above T_A=25°C per Fig. 2.
2. Mounted on Copper Leaf area of 0.79 in^2(20mm^2).
3. 8.3ms single half sine-wave, duty cycle= 4 pulses per minutes maximum.
4. A transient suppressor is selected according to the working peak reverse voltage (V_{RWM}), which should be equal to or greater than the DC or continuous peak operating voltage level.

1.5SMC SERIES

Part Number		Reverse Stand-off Voltage	Breakdown Voltage		Test Current	Reverse Leakage		Max. Clamp Voltage 10/1000μs	Peak Pulse Current 10/1000μs	Marking Code	
		V_{RWM}(Notes 4)	V_{BR} @ I_T		I_T	I_R @ V_{RWM}		V_C @ I_{PP}	I_{PP}		
			Min.	Max.		UNI	BI				
UNI	BI	V	V	V	mA	μA	μA	V	A	UNI	BI
1500W Transient Voltage Suppressor											
1.5SMC6.8	1.5SMC6.8C	5.5	6.12	7.48	10	1000	2000	10.8	139	FZA	JZA
1.5SMC6.8A	1.5SMC6.8CA	5.8	6.45	7.14	10	1000	2000	10.5	143	FZB	JZB
1.5SMC7.5	1.5SMC7.5C	6.05	6.75	8.25	10	500	1000	11.7	128	FZC	JZC
1.5SMC7.5A	1.5SMC7.5CA	6.4	7.13	7.88	10	500	1000	11.3	132	FZD	JZD
1.5SMC8.2	1.5SMC8.2C	6.63	7.38	9.02	10	200	400	12.5	120	FZE	JZE
1.5SMC8.2A	1.5SMC8.2CA	7.02	7.79	8.61	10	200	400	12.1	124	FZF	JZF
1.5SMC9.1	1.5SMC9.1C	7.37	8.19	10	1	50	100	13.8	109	FZG	JZG
1.5SMC9.1A	1.5SMC9.1CA	7.78	8.65	9.5	1	50	100	13.4	112	FZH	JZH
1.5SMC10	1.5SMC10C	8.1	9	11	1	10	20	15	100	FZJ	JZJ
1.5SMC10A	1.5SMC10CA	8.55	9.5	10.5	1	10	20	14.5	103	FZK	JZK
1.5SMC11	1.5SMC11C	8.92	9.9	12.1	1	5	10	16.2	93	FZL	JZL
1.5SMC11A	1.5SMC11CA	9.4	10.5	11.6	1	5	10	15.6	96	FZM	JZM
1.5SMC12	1.5SMC12C	9.72	10.8	13.2	1	5	5	17.3	87	FZN	JZN
1.5SMC12A	1.5SMC12CA	10.2	11.4	12.6	1	5	5	16.7	90	FZP	JZP
1.5SMC13	1.5SMC13C	10.5	11.7	14.3	1	1	1	19	79	FZQ	JZQ
1.5SMC13A	1.5SMC13CA	11.1	12.4	13.7	1	1	1	18.2	82	FZR	JZR
1.5SMC15	1.5SMC15C	12.1	13.5	16.5	1	1	1	22	68	FZS	JZS
1.5SMC15A	1.5SMC15CA	12.8	14.3	15.8	1	1	1	21.2	71	FZT	JZT
1.5SMC16	1.5SMC16C	12.9	14.4	17.6	1	1	1	23.5	64	FZU	JZU
1.5SMC16A	1.5SMC16CA	13.6	15.2	16.8	1	1	1	22.5	67	FZV	JZV
1.5SMC18	1.5SMC18C	14.5	16.2	19.8	1	1	1	26.5	56.5	FZW	JZW
1.5SMC18A	1.5SMC18CA	15.3	17.1	18.9	1	1	1	25.2	59.5	FZX	JZX
1.5SMC20	1.5SMC20C	16.2	18	22	1	1	1	29.1	51.5	FZY	JZY
1.5SMC20A	1.5SMC20CA	17.1	19	21	1	1	1	27.7	54	FZZ	JZZ
1.5SMC22	1.5SMC22C	17.8	19.8	24.2	1	1	1	31.9	47	FXA	JXA
1.5SMC22A	1.5SMC22CA	18.8	20.9	23.1	1	1	1	30.6	49	FXB	JXB
1.5SMC24	1.5SMC24C	19.4	21.6	26.4	1	1	1	34.7	43	FXC	JXC
1.5SMC24A	1.5SMC24CA	20.5	22.8	25.2	1	1	1	33.2	45	FXD	JXD
1.5SMC27	1.5SMC27C	21.8	24.3	29.7	1	1	1	39.1	38.5	FXE	JXE
1.5SMC27A	1.5SMC27CA	23.1	25.7	28.4	1	1	1	37.5	40	FXF	JXF
1.5SMC30	1.5SMC30C	24.3	27	33	1	1	1	43.5	34.5	FXG	JXG
1.5SMC30A	1.5SMC30CA	25.6	28.5	31.5	1	1	1	41.4	36	FXH	JXH
1.5SMC33	1.5SMC33C	26.8	29.7	36.3	1	1	1	47.7	31.5	FXJ	JXJ
1.5SMC33A	1.5SMC33CA	28.2	31.4	34.7	1	1	1	45.7	33	FXK	JXK
1.5SMC36	1.5SMC36C	29.1	32.4	39.6	1	1	1	52	29	FXL	JXL
1.5SMC36A	1.5SMC36CA	30.8	34.2	37.8	1	1	1	49.9	30	FXM	JXM
1.5SMC39	1.5SMC39C	31.6	35.1	42.9	1	1	1	56.4	26.5	FXN	JXN
1.5SMC39A	1.5SMC39CA	33.3	37.1	41	1	1	1	53.9	28	FXP	JXP
1.5SMC43	1.5SMC43C	34.8	38.7	47.3	1	1	1	61.9	24	FXQ	JXQ

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1.5SMC SERIES

Part Number		Reverse Stand-off Voltage	Breakdown Voltage		TestC urrent	Reverse Leakage		Max. Clamp Voltage 10/1000μs	Peak Pulse Current 10/1000μs	Marking Code	
		V_{RWM}(Notes 4)	V_{BR} @ I_T		I_T	I_R @ V_{RWM}		V_C @ I_{PP}	I_{PP}		
			Min.	Max.		UNI	BI				
UNI	BI	V	V	V	mA	μA	μA	V	A	UNI	BI
1500W Transient Voltage Suppressor											
1.5SMC43A	1.5SMC43CA	36.8	40.9	45.2	1	1	1	59.3	25.3	FXR	JXR
1.5SMC47	1.5SMC47C	38.1	42.3	51.7	1	1	1	67.8	22.2	FXS	JXS
1.5SMC47A	1.5SMC47CA	40.2	44.7	49.4	1	1	1	64.8	23.2	FXT	JXT
1.5SMC51	1.5SMC51C	41.3	45.9	56.1	1	1	1	73.5	20.4	FXU	JXU
1.5SMC51A	1.5SMC51CA	43.6	48.5	53.6	1	1	1	70.1	21.4	FXV	JXV
1.5SMC56	1.5SMC56C	45.6	50.4	61.6	1	1	1	80.5	18.6	FXW	JXW
1.5SMC56A	1.5SMC56CA	47.8	53.2	58.8	1	1	1	77	19.5	FXX	JXX
1.5SMC62	1.5SMC62C	50.2	55.8	68.2	1	1	1	89	16.9	FXY	JXY
1.5SMC62A	1.5SMC62CA	53	58.9	65.1	1	1	1	85	17.7	FXZ	JXZ
1.5SMC68	1.5SMC68C	55.1	61.2	74.8	1	1	1	98	15.3	FYA	JYA
1.5SMC68A	1.5SMC68CA	58.1	64.6	71.4	1	1	1	92	16.3	FYB	JYB
1.5SMC75	1.5SMC75C	60.7	67.5	82.5	1	1	1	108	13.9	FYC	JYC
1.5SMC75A	1.5SMC75CA	64.1	71.3	78.8	1	1	1	103	14.6	FYD	JYD
1.5SMC82	1.5SMC82C	66.4	73.8	90.2	1	1	1	118	12.7	FYE	JYE
1.5SMC82A	1.5SMC82CA	70.1	77.9	86.1	1	1	1	113	13.3	FYF	JYF
1.5SMC91	1.5SMC91C	73.7	81.9	100	1	1	1	131	11.4	FYG	JYG
1.5SMC91A	1.5SMC91CA	77.8	86.5	95.5	1	1	1	125	12	FYH	JYH
1.5SMC100	1.5SMC100C	81	90	110	1	1	1	144	10.4	FYJ	JYJ
1.5SMC100A	1.5SMC100CA	85.5	95	105	1	1	1	137	11	FYK	JYK
1.5SMC110	1.5SMC110C	89.2	99	121	1	1	1	158	9.5	FYL	JYL
1.5SMC110A	1.5SMC110CA	94	105	116	1	1	1	152	9.9	FYM	JYM
1.5SMC120	1.5SMC120C	97.2	108	132	1	1	1	173	8.7	FYN	JYN
1.5SMC120A	1.5SMC120CA	102	114	126	1	1	1	165	9.1	FYP	JYP
1.5SMC130	1.5SMC130C	105	117	143	1	1	1	187	8	FYQ	JYQ
1.5SMC130A	1.5SMC130CA	111	124	137	1	1	1	179	8.4	FYR	JYR
1.5SMC150	1.5SMC150C	121	135	165	1	1	1	215	7	FYS	JYS
1.5SMC150A	1.5SMC150CA	128	143	158	1	1	1	207	7.2	FYT	JYT
1.5SMC160	1.5SMC160C	130	144	176	1	1	1	230	6.5	FYU	JYU
1.5SMC160A	1.5SMC160CA	136	152	168	1	1	1	219	6.8	FYV	JYV
1.5SMC170	1.5SMC170C	138	153	187	1	1	1	244	6.2	FYW	JYW
1.5SMC170A	1.5SMC170CA	145	162	179	1	1	1	234	6.4	FYX	JYX
1.5SMC180	1.5SMC180C	146	162	198	1	1	1	258	5.8	FYY	JYY
1.5SMC180A	1.5SMC180CA	154	171	189	1	1	1	246	6.1	FYZ	JYZ
1.5SMC200	1.5SMC200C	162	180	220	1	1	1	287	5.2	FWA	JWA
1.5SMC200A	1.5SMC200CA	171	190	210	1	1	1	274	5.5	FWB	JWB
1.5SMC220	1.5SMC220C	175	198	242	1	1	1	344	4.3	FWC	JWC
1.5SMC220A	1.5SMC220CA	185	209	231	1	1	1	328	4.6	FWD	JWD
1.5SMC250	1.5SMC250C	202	225	275	1	1	1	360	4.3	FWE	JWE
1.5SMC250A	1.5SMC250CA	214	237	263	1	1	1	344	4.5	FWF	JWF

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1.5SMC SERIES

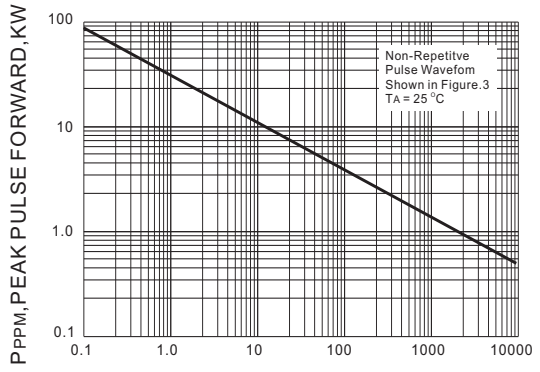


Fig.1 PEAK PULSE POWER RATING VERSUS PULSE TIME CURVE

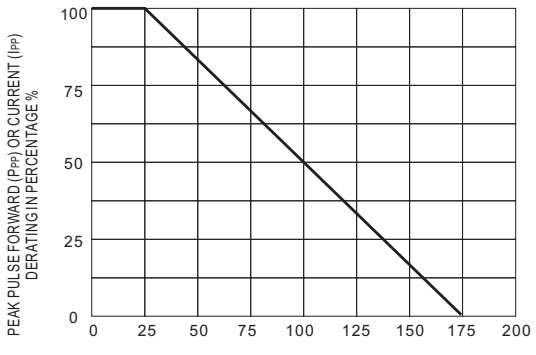


Fig.2 PULSE DERATING CURVE

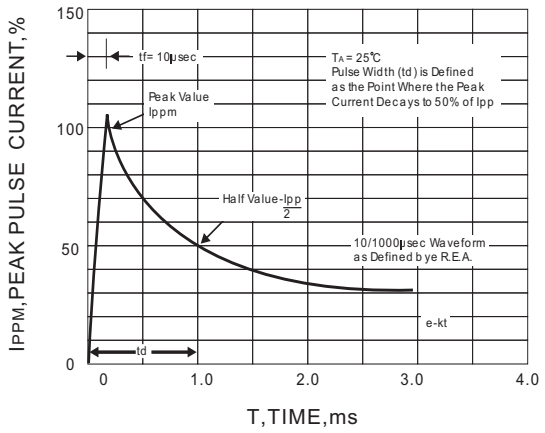


Fig.3 PULSE WAVEFORM

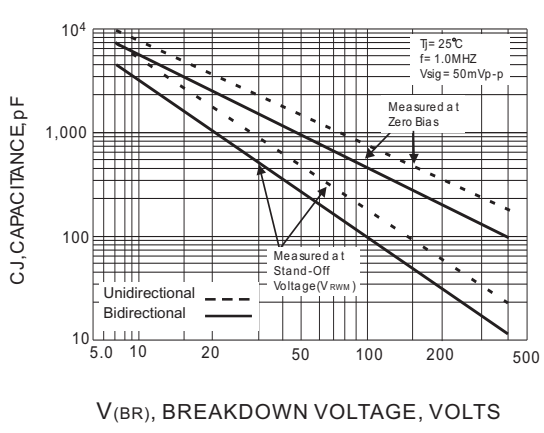


Fig.4 TYPICAL JUNCTION CAPACITANCE

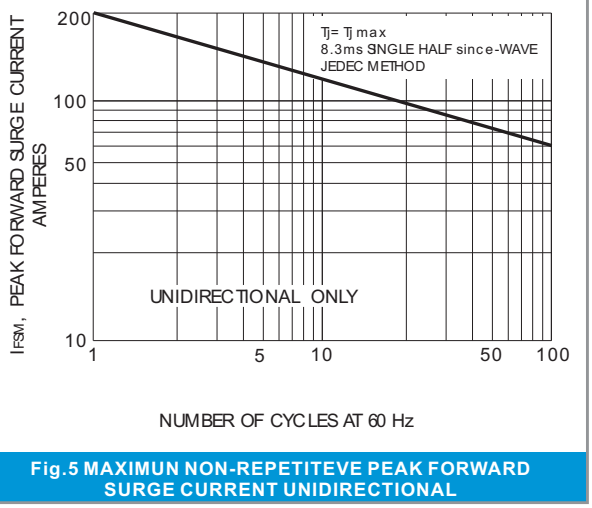
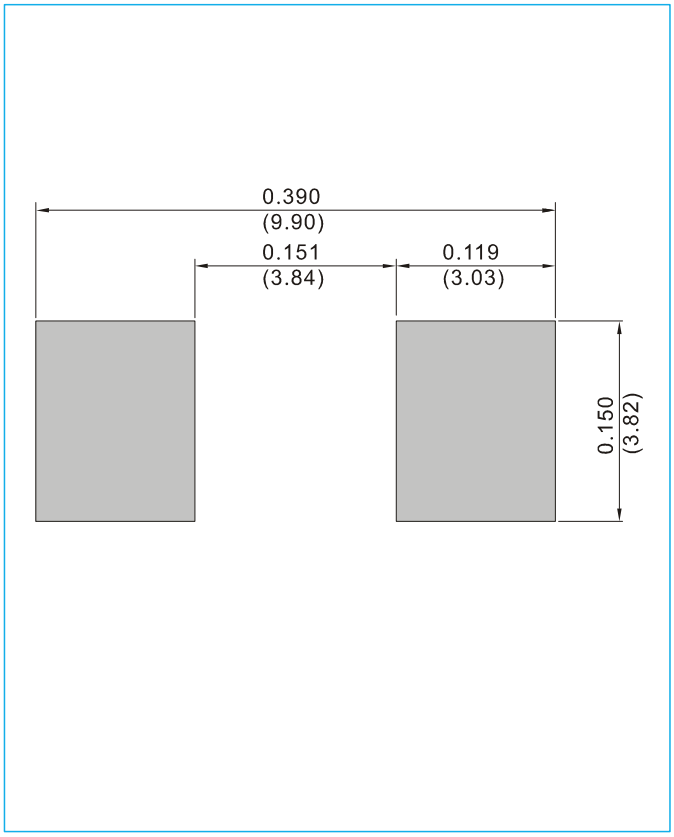


Fig.5 MAXIMUN NON-REPETITEVE PEAK FORWARD SURGE CURRENT UNIDIRECTIONAL

1.5SMC SERIES

MOUNTING PAD LAYOUT

SMC / DO-214AB Unit：inch(mm)



ORDER INFORMATION

- Packing information

  T/R - 3K per 13" plastic Reel

  T/R - 0.5K per 7" plastic Reel

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1.5SMC SERIES

Part No_packing code_Version

1.5SMC6.8_R1_00001

1.5SMC6.8_R2_00001

For example :

RB500V-40_R2_00001

Part No.

Serial number

Version code means HF

Packing size code means 13"

Packing type means T/R

Packing Code XX				Version Code XXXXX		
Packing type	1st Code	Packing size code	2nd Code	HF or RoHS	1st Code	2nd~5th Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			

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1.5SMC SERIES

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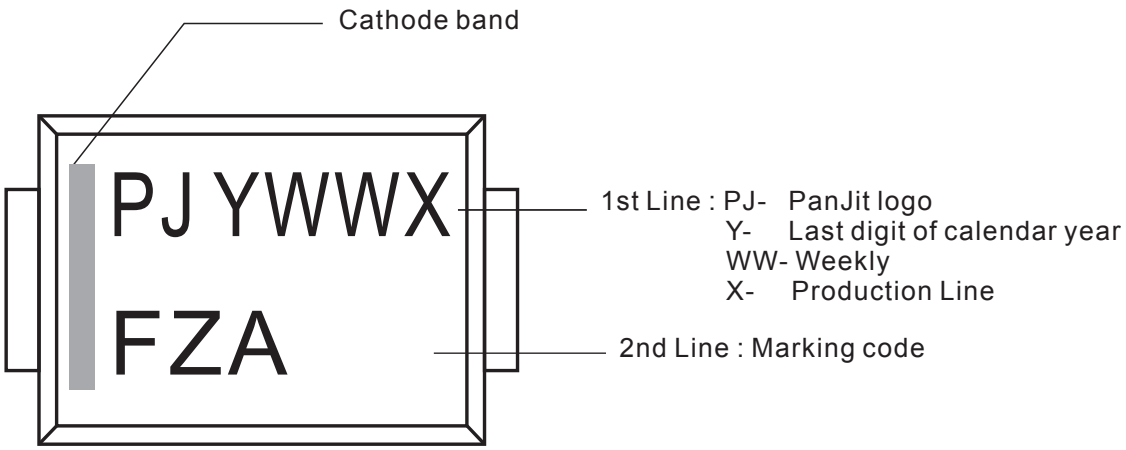
2. MARKING



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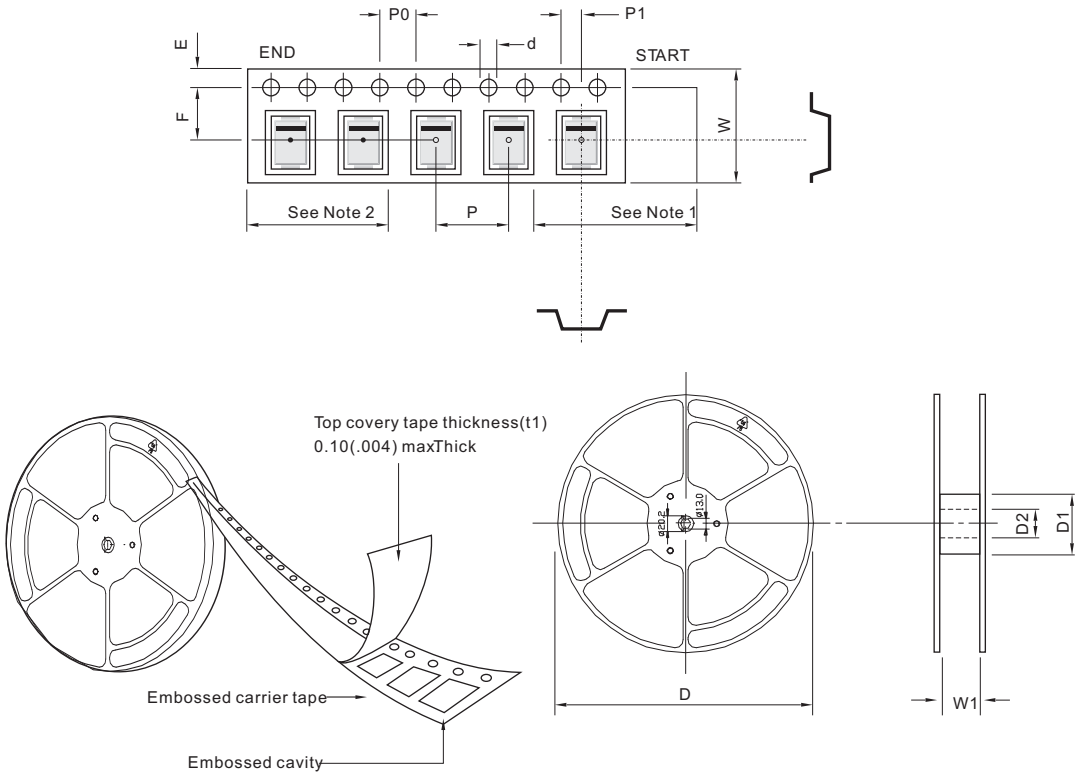
3. TAPING



SYMBOL	mm(inch)	SYMBOL	mm(inch)	SYMBOL	mm(inch)
TYPE SIZE	12.00 (0.472)	TYPE SIZE	12.00 (0.472)	TYPE SIZE	16.00 (0.629)
Package	SMA/SMA(W)	Package	SMB	Package	SMC
d	1.55 + 0.05 (0.06 + 0.001)	d	1.55 + 0.05 (0.06 + 0.001)	d	1.55 ± 0.05 (0.06 ± 0.001)
D	178.0 + 2.0 (7.0 + 0.078)	D	178.0 + 2.0 (13.0 + 0.078)	D	178.0 ± 2.0 (13.0 ± 0.078)
D1	50.0 min (1.97 min)	D1	50.0 min (1.97 min)	D1	50.0 min (1.97 min)
D2	13.0 + 0.2 (0.51 + 0.007)	D2	13.0 + 0.2 (0.51 + 0.007)	D2	13.0 ± 0.5 (0.51 ± 0.019)
E	1.75 + 0.10 (0.068 + 0.003)	E	1.75 + 0.10 (0.068 + 0.003)	E	1.75 ± 0.10 (0.068 ± 0.003)
F	5.50 + 0.1 (0.21 + 0.003)	F	5.50 + 0.05 (0.21 + 0.001)	F	7.5 ± 0.10 (0.29 ± 0.003)
P	4.00 + 0.10 (0.15 + 0.003)	P	8.00 + 0.10 (0.31 + 0.003)	P	8.00 ± 0.10 (0.31 ± 0.003)
Po	4.00 + 0.10 (0.15 + 0.003)	Po	4.00 + 0.10 (0.15 + 0.003)	Po	4.00 ± 0.10 (0.15 ± 0.003)
P1	2.00 + 0.1 (0.07 + 0.003)	P1	2.00 + 0.05 (0.07 + 0.001)	P1	2.00 ± 0.10 (0.07 ± 0.003)
W	12.00 + 0.3 (0.472 + 0.118)	W	12.00 + 0.3 (0.472 + 0.118)	W	16.00 ± 0.3 (0.472 ± 0.118)
W1	12.40 ~ 14.40Maxmum (0.48 ~ 0.56)	W1	12.40 ~ 14.40Maxmum (0.48 ~ 0.56)	W1	16.40 ~ 18.40Maxmum (0.64 ~ 0.72)

Note:

1. There shall be leader of 230 mm minimum which may consist of carrier and or cover tape follower by a minimum of 160 mm of carrier tape sealed with cover tape.
2. There shall be minimum of 160 mm of empty component pockets sealed with cover tape.
3. Devices are packed in accordance whit EIA standard EIA-481-A and specifications given above.

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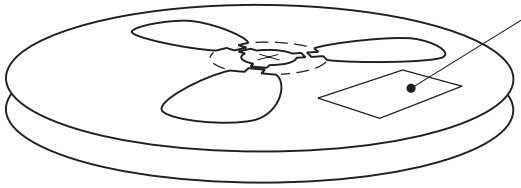
4. PACKING

REEL PACKING



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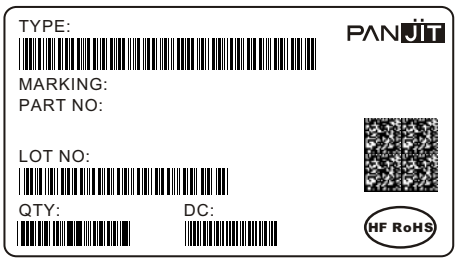
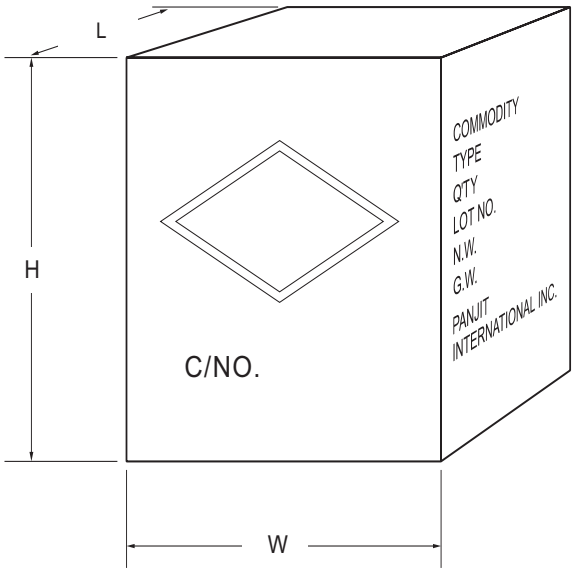


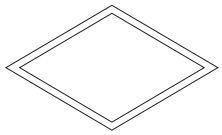
Quantity per Reel:

CARTON



Box Dimensions :mm
Quantity per Box:

SHIPPING MARK



C/NO.
PRODUCT COUNTRY

SIDE MARK

COMMODITY:
TYPE:
Q'TY:
LOT NO.
N.W.
G.W.

PANJIT
INTERNATIONAL INC.

Line	Package	Packing	Size	Quantity	Inner box size LxWxH (m/m)	Carton Quantity	Carton size LxWxH (m/m)
SMD	SMA	T/R	7"	1,800	188x188x67	10box/72K	390x240x420
	SMB	T/R		500	188x188x67	10box/20K	390x240x420
	SMC	T/R		500	188x188x67	10box/15K	390x240x420
	SMA(W)	T/R		1,800	188x188x67	10box/72K	390x240x420
	SMA	T/R	13"	7,500	350x337x44	8box/120K	375x360x390
	SMB	T/R		3,000	350x337x44	8box/48K	375x360x390
	SMC	T/R		3,000	350x337x44	7box/42K	375x360x390
	SMA(W)	T/R		7,500	350x337x44	8box/120K	355x355x400

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Packing Specifications

Package	Reel Size	Reel	Component Space	Tape Space	Reel Dia	Carton Size	Carton	Approx. Gross Weight
	(inch)	(pcs)	(m/m)	(m/m)	(m/m)	(m/m)	(EA)	(Kg)
Reel Packing								
DFN 0603	7	10,000	2	8	178	390 x 270 x 400	800,000	9
DFN 2L	7	8,000	2	8	178	390 x 270 x 400	640,000	8.6
DFN 3L	7	8,000	2	8	178	390 x 270 x 400	640,000	8.6
DFN1616-8L	7	5,000	4	8	178	390 x 270 x 400	400,000	10.4
	13	12,000	4	8	330	375 x 360 x 230	144,000	7.6
SOD-923	7	8,000	2	8	178	390 x 270 x 400	640,000	7.7
SOD-523	7	5,000	4	8	178	390 x 270 x 400	400,000	9.1
	13	12,000	4	8	330	375 x 360 x 230	144,000	5.4
SOD-323HE	7	5,000	4	8	178	390 x 270 x 400	400,000	11.9
	13	12,000	4	8	178	375 x 360 x 230	144,000	8.3
SOD-323	7	5,000	4	8	178	390 x 270 x 400	400,000	9.4
	13	12,000	4	8	330	375 x 360 x 230	144,000	5.9
SOD-123HE	7	3,000	4	8	178	390 x 270 x 400	240,000	12.4
	13	10,000	4	8	330	375 x 360 x 230	120,000	8.1
SOD-123FL	7	3,000	4	8	178	390 x 270 x 400	240,000	10.6
	13	10,000	4	8	330	375 x 360 x 230	120,000	7.2
SOD-123	7	3,000	4	8	178	390 x 270 x 400	240,000	9.9
	13	10,000	4	8	330	375 x 360 x 230	120,000	6.5
SOT-563	7	4,000	4	8	178	390 x 270 x 400	320,000	9.4
	13	10,000	4	8	330	375 x 360 x 230	120,000	5.2
SOT-553	7	4,000	4	8	178	390 x 270 x 400	320,000	9.4
	13	10,000	4	8	330	375 x 360 x 230	120,000	5.2
SOT-543	7	4,000	4	8	178	390 x 270 x 400	320,000	9.4
	13	10,000	4	8	330	375 x 360 x 230	120,000	5.2
SOT-523	7	4,000	4	8	178	390 x 270 x 400	320,000	10
SOT-363	7	3,000	4	8	178	390 x 270 x 400	240,000	10.2
	13	10,000	4	8	330	375 x 360 x 230	120,000	7.1
SOT-363 (ESD)	7	3,000	4	8	178	455 x 270 x 440	240,000	10
SOT-353	7	3,000	4	8	178	390 x 270 x 400	240,000	10
	13	10,000	4	8	330	375 x 360 x 230	120,000	7.2
SOT-23 6L	7	3,000	4	8	178	390 x 270 x 400	240,000	14.5
	13	10,000	4	8	330	375 x 360 x 230	120,000	7.9
SOT-23 6L-1	7	3,000	4	8	178	390 x 270 x 400	240,000	14.5
	13	10,000	4	8	330	375 x 360 x 230	120,000	7.9
SOT-23 5L	7	3,000	4	8	178	390 x 270 x 400	240,000	14.5
	13	10,000	4	8	330	375 x 360 x 230	120,000	7.9
SOT-323	7	3,000	4	8	178	390 x 270 x 400	240,000	7.9
	13	12,000	4	8	330	375 x 360 x 230	144,000	6.1
SOT-323 (ESD)	7	3,000	4	8	178	455 x 270 x 440	240,000	9.4
SOT-23-1	7	3,000	4	8	178	390 x 270 x 400	240,000	9.8
	13	12,000	4	8	330	375 x 360 x 230	144,000	7
SOT-23	7	3,000	4	8	178	390 x 270 x 400	240,000	9.8
	13	12,000	4	8	330	375 x 360 x 230	144,000	7
SOT-23 (ESD)	7	3,000	4	8	178	455 x 270 x 440	240,000	9.9

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Packing Specifications

Package	Reel Size	Reel	Component Space	Tape Space	Reel Dia	Carton Size	Carton	Approx. Gross Weight
	(inch)	(pcs)	(m/m)	(m/m)	(m/m)	(m/m)	(EA)	(Kg)
Reel Packing								
SMAF	7	3,000	4	12	178	390 x 240 x 420	120,000	10.9
	13	10,000	4	12	330	375 x 360 x 422	160,000	17.1
SMBF	13	5,000	8	12	330	375 x 360 x 422	80,000	15.6
SMA(W)	7	1,800	4	12	178	390 x 240 x 420	100,800	13
	13	7,500	4	12	330	355 x 355 x 400	150,000	20.4
SMA/DO-214AC	7	1,800	4	12	178	390 x 240 x 420	72,000	10
	13	7,500	4	12	330	375 x 360 x 390	120,000	17.4
SMB/DO-214AA	7	500	8	12	178	390 x 240 x 420	20,000	6.5
	13	3,000	8	12	330	375 x 360 x 390	48,000	13.2
SMC/DO-214AB	7	500	8	16	178	390 x 240 x 420	15,000	8.4
	13	3,000	8	16	330	375 x 360 x 390	42,000	18
R-1	13	5,000	5	52	330	340 x 340 x 410	25,000	7.8
A-405	13	5,000	5	52	330	340 x 340 x 410	25,000	7.79
DO-41	13	5,000	5	52	330	340 x 340 x 410	25,000	11.1
DO-15	13	4,000	5	52	330	340 x 340 x 410	20,000	11.4
DO-201AD	13	1,250	10	52	330	340 x 340 x 410	6,250	9.2
DO-201AE	13	1,250	10	52	330	340 x 340 x 410	6,250	9.2
P-600	13	800	10	52	330	340 x 340 x 410	4,000	9.9
DO-34	15	10,000	5	52	360	360 x 360 x 395	50,000	10.1
DO-35	15	10,000	5	52	360	360 x 360 x 395	50,000	11.2
DO-41G	15	5,000	5	52	360	360 x 360 x 395	25,000	10.9
MICRO-MELF	7	2,500	4	-	178	385 x 380 x 260	200,000	9.3
	13	10,000	4	-	330	360 x 360 x 395	200,000	11.5
QUADRO-MELF	13	10,000	4	-	330	360 x 360 x 395	200,000	14.9
	7	2,500	4	-	178	385 x 380 x 260	200,000	13.3
MINI-MELF/LL-34	7	2,500	4	-	178	385 x 380 x 260	200,000	12.7
	13	10,000	4	-	330	360 x 360 x 395	200,000	14.6
MELF/DL-41	7	1,500	4	-	178	385 x 380 x 260	84,000	18.3
	13	5,000	4	-	330	360 x 360 x 395	100,000	23.5
MDI	13	3,000	8	12	330	375 x 360 x 390	48,000	14.7
MICRO DIP/TDI	7	1,000	8	12	178	390 x 240 x 420	40,000	9.5
	13	4,000	8	12	330	375 x 360 x 422	64,000	17
SDIP	13	1,500	12	16	330	375 x 360 x 390	21,000	14.3
TO-277	13	5,000	8	12	330	375 x 360 x 422	80,000	20.6
TO-277B	13	5,000	8	12	330	375 x 360 x 390	80,000	21.8
TO-252/DPAK	13	3,000	8	16	330	375 x 360 x 422	42,000	18.8
TO-263/D^2PAK	13	800	16	24	330	375 x 360 x 422	6,400	14.5

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Packing Specifications

Package	Inner Box Size	Box	Carton Size	Carton	Appox. Gross Weight
	(m/m)	(EA)	(m/m)	(EA)	(Kg)
Bulk Packing					
R-1	198 x 84 x 20	1,000	459 x 214 x 256	50,000	12.7
A-405	198 x 84 x 20	1,000	459 x 214 x 256	50,000	12.7
DO-41	198 x 84 x 20	1,000	459 x 214 x 256	50,000	19.3
DO-15	200 x 85 x 25	1,000	459 x 214 x 256	40,000	20.7
DO-201AD	200 x 85 x 40	500	459 x 214 x 256	12,500	16
DO-201AE	200 x 85 x 40	500	495 x 214 x 256	12,500	16
P-600	208 x 90 x 83	500	459 x 214 x 256	5,000	11.3
DO-34	240 x 100 x 90	2,000	406 x 335 x 257	120,000	14.5
DO-35	240 x 100 x 90	2,000	406 x 335 x 257	120,000	17.1
DO-41G	240 x 100 x 90	1,000	406 x 335 x 257	60,000	18.5
TO-220	540 x 145 x 85	2,000	555 x 306 x 200	8,000	22.9
ITO-220	540 x 145 x 85	2,000	555 x 306 x 200	8,000	20.5
TO-251AB/DPAK	555 x 145 x 95	8,400	572 x 306 x 218	33,600	22
TO-3PN	-	-	600x185x230	1,800	16.4
TO-247AD/TO-3P	-	-	530 x 243 x 100	1,500	13.9
TO-247S/TO-3PS	-	-	511 x 243 x 107	1,500	12.2
DIP	-	-	459 x 214 x 256	12,000	6.5
SDIP	-	-	459 x 214 x 256	24,000	15.7

Package	Inner Box Size	Ammo	Component Space	Tape Space	Carton Size	Carton	Appox. Gross Weight
	(m/m)	(pcs)	(m/m)	(m/m)	(m/m)	(EA)	(Kg)
Ammunition Packing							
R-1	255 x 47 x 73	3,000	5	26	310 x 268 x 170	36,000	6.3
	255 x 73 x 73	3,000	5	52	310 x 268 x 170	24,000	6.3
	255 x 73 x 122	5,000	5	52	339 x 276 x 274	40,000	10.3
A-405	255 x 47 x 150	5,000	5	26	339 x 276 x 330	60,000	12.4
	255 x 75 x 150	5,000	5	52	339 x 276 x 330	40,000	16
DO-41	255 x 75 x 150	5,000	5	52	339 x 276 x 330	40,000	15.9
DO-15	255 x 75 x 150	3,000	5	52	339 x 276 x 330	24,000	13.3
DO-201AD	255 x 47 x 122	1,250	10	52	339 x 276 x 330	10,000	13.4
DO-201AE	255 x 47 x 122	1,250	10	52	339 x 276 x 330	10,000	13.4
P-600	255 x 47 x 122	400	10	52	339 x 276 x 330	3,200	8.1
DO-34	248 x 80 x 48	5,000	5	26	406 x 335 x 257	150,000	14.5
	248 x 80 x 75	5,000	5	52	406 x 335 x 257	100,000	12.7
DO-35	248 x 80 x 48	5,000	5	26	406 x 335 x 257	150,000	16.7
	248 x 80 x 75	5,000	5	52	406 x 335 x 257	100,000	15.2
DO-41G	248 x 80 x 48	2,500	5	26	406 x 335 x 257	75,000	17.1
	248 x 80 x 75	2,500	5	52	406 x 335 x 257	50,000	15.6

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5.HIGH RELIABILITY TEST SPEC
（Zener & TVS）

Date：2010.07.05 rev.01

NO.	TEST ITEM	TEST CONDITION	REFERENCED DOCUMENT	LOT QUALITY LEVEL
1	TEMPERATURE CYCLING (T.C.T) 溫度循環試驗	Ta＝－55＋0℃/－10℃ 10min(Min) Ta＝＋150＋15℃/－0℃ 10min(Min) FOR 20CYCLES	MIL-STD-750D METHOD-1051.5 Condition G	LTPD 10 S.S ＝22 ACCEPT FOR 0 FAILURE ONLY.
2	HIGH TEMPERATURE STORAGE LIFE (H.T.S.L) 高溫儲存壽命試驗	Ta＝Storage Temperature Range (device specified maximum temperature)	MIL-STD-750D METHOD-1032.2	LTPD 10 S.S ＝22 ACCEPT FOR 0 FAILURE ONLY.
3	SOLDERABILITY TEST 銲錫性試驗	Temperature of Solder TEMPERATURE OF SOLDER POT＝245＋/－5℃ TIME FOR DIPPING IN SOLDER＝5＋/－0.5 SEC DIPPING DEPTH＝0.05inch max from the body FOR ONE CYCLE	MIL-STD-750D METHOD-2026.10	LTPD 7 S.S ＝32 ACCEPT FOR 0 FAILURE ONLY.
4	HIGH TEMPERATURE REVERSE BIAS (H.T.R.B) 高溫逆向偏壓	Tj≦Tj max VR=0.8VR(CUSTOMER SPEC.) DC supply	MIL-STD-750D METHOD-1038.3	LTPD 10 S.S ＝22 ACCEPT FOR 0 FAILURE ONLY.
6	THERMAL SHOCK (T.S.T) 冷熱衝擊試驗	HOT TANK Ta＝100＋10/－2℃ t= 5min COLD TANK Ta＝0＋2/－10℃ t= 5min 15 CYCLES TIME BETWEEN TRANSFERRING DO NOT EXCEED 10 SEC	MIL-STD-750D METHOD 1056.7	LTPD 10 S.S ＝22 ACCEPT FOR 0 FAILURE ONLY.
7	PRESSURE COOKER (P.C.T) 壓力鍋試驗	Ta＝121℃ P＝29.7psia / 205kPa or 2.088kg/㎠ Relative Humidity = 100%	JEDEC JESD22-A102-C	LTPD 10 S.S ＝22 ACCEPT FOR 0 FAILURE ONLY.
8	HUMIDITY 恆溫濕試驗	Ta=85+/-2℃ RH=85+/-5%	EIAJ ED-4701 METHOD 103	LTPD 10 S.S ＝22 ACCEPT FOR 0 FAILURE ONLY.
9	SOLDER RESISTANCE 銲錫耐熱性試驗	TEMPERATURE OF SOLDER POT＝260＋/－5℃ TIME FOR DIPPING IN SOLDER＝10＋2/－0 SEC DIPPING DEPTH＝1.57＋/－0.79mm FROM THE BODY FOR ONE CYCLE	MIL-STD-750D METHOD 2031.2	LTPD 10 S.S ＝22 ACCEPT FOR 0 FAILURE ONLY.

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