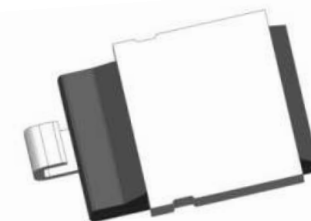
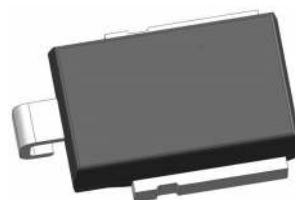


6.6KW Surface Mount Transient Vol Tage Suppressor

Features

- ❖ ISO10605(C=330 pF,R=330Ω): ± 30kV Air, ± 30kV Contact
- ❖ HBM $\geq \pm 8$ kV & CDM $\geq \pm 2$ kV
- ❖ Meets ISO 7637-2 Requirements
- ❖ Meets MSL Level 1 per J-STD-020
- ❖ Lead free in compliance with EU RoHS 2.0
- ❖ Green molding compound as per IEC 61249 standard

DO-218



Mechanical Data

- ❖ **Case:** Molded plastic, DO-218
- ❖ **Terminals:** Solder plated, solderable per MIL-STD-750, Method 2026
- ❖ **Approx. Weight:** 0.099 ounces, 2.821 grams
Only suitable for P-type chip

Maximum Ratings and Thermal Characteristics (TA = 25 °C unless otherwise noted)

Parameter	Symbol	Limit	Units
10/1,000us Peak Pulse Power Dissipation	$P_{PPM1}^{(1)}$	6600	W
10/10,000us Peak Pulse Power Dissipation	P_{PPM2}	5200	W
Peak Surge Current (60Hz half wave)	I_{FSM}	700	A
Typical Thermal Resistance Junction to Case	$R_{\theta JC}$	0.9	°C/W
Power Dissipation on infinite heatsink $T_C = 25^\circ\text{C}$	P_D	8	W
ISO10605(C 330 pF,R 330Ω) Contact	V_{ESD}	30	kV
ISO10605(C 330 pF,R 330Ω) Air	V_{ESD}	30	kV
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to 175	°C

Electrical Characteristics (TA = 25 °C unless otherwise noted)

Part Number	VRWM	VBR			Reverse Leakage		Vc @IPP ⁽¹⁾	
		Min.	Max.	IT	IR@VRWM	IR@VRWM TJ 175 °C		
	V	V	V	mA	uA	uA	V	A
6600W Transient Voltage Suppressor								
SM6T14A/CA	14	15.6	17.2	5	1	150	23.2	284
SM6T15A/CA	15	16.7	18.5	5	1	150	24.4	270
SM6T16A/CA	16	17.8	19.7	5	1	150	26	254
SM6T17A/CA	17	18.9	20.9	5	1	150	27.6	239
SM6T18A/CA	18	20	22.1	5	0.5	150	29.2	226
SM6T20A/CA	20	22.2	24.5	5	0.5	150	32.4	204
SM6T22A/CA	22	24.4	26.9	5	0.5	150	35.5	186
SM6T24A/CA	24	26.7	29.5	5	0.5	150	38.9	170
SM6T26A/CA	26	28.9	31.9	5	0.5	150	42.1	157
SM6T28A/CA	28	31.1	34.4	5	0.5	150	45.4	145
SM6T30A/CA	30	33.3	36.8	5	0.5	150	48.4	136
SM6T33A/CA	33	36.7	40.6	5	0.5	150	53.3	124
SM6T36A/CA	36	40	44.2	5	0.5	150	58.1	114
SM6T40A/CA	40	44.4	49.1	5	0.5	150	64.5	102
SM6T43A/CA	43	47.8	52.8	5	0.5	150	69.4	95
SM6T48A/CA	48	53.3	58.7	5	0.5	150	80.6	82

NOTES:

1. Non-repetitive current pulse, per Fig.3 and derated above TA=25°C per Fig.1
2. TVS is a transient protection device, it is strongly recommended not to use as a Zener.
3. Add suffix "CA" after part number to specify Bi-directional devices

RATING AND CHARACTERISTICS CURVES (SM6T SEREIS)

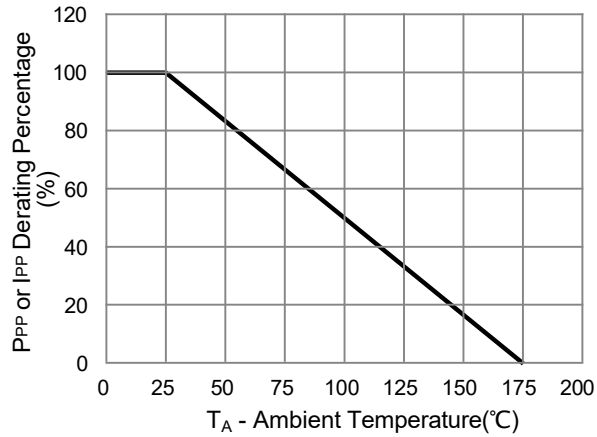


Fig.1 Pulse Power Rating Curve

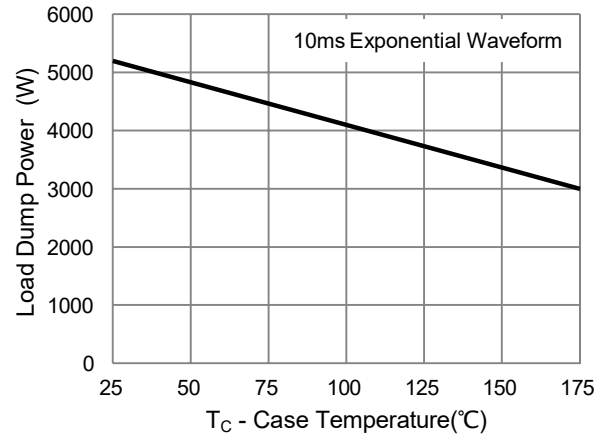


Fig.2 Load Dump Power Characteristics

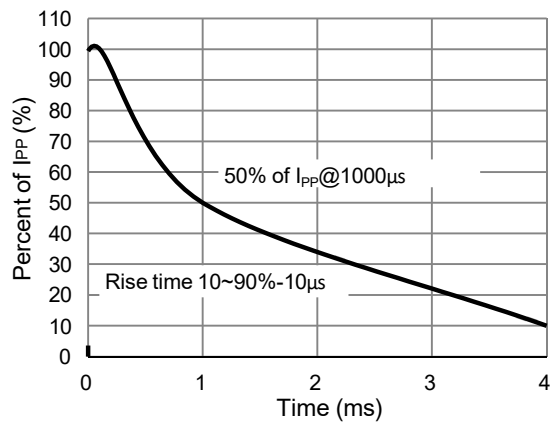


Fig.3 Pulse Waveform

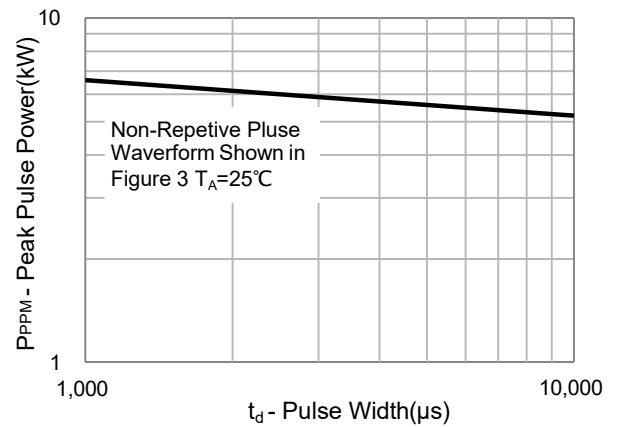


Fig.4 Peak Pulse Power Rating Curve

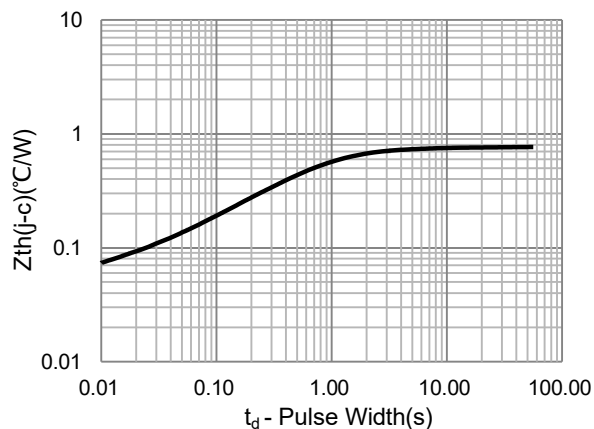


Fig.5 Typical Transient Thermal Impedance

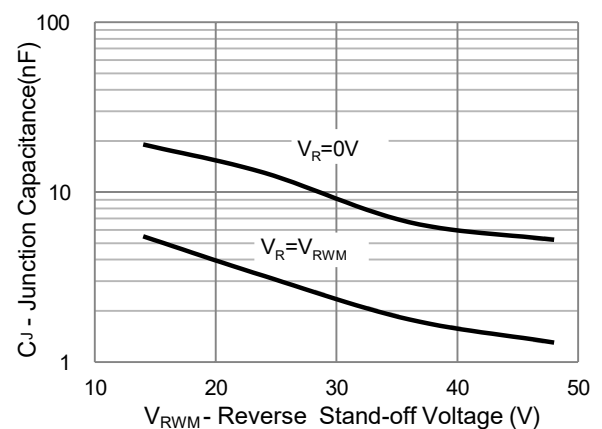


Fig.6 Typical Capacitance

RATING AND CHARACTERISTICS CURVES (SM6T SEREIS)

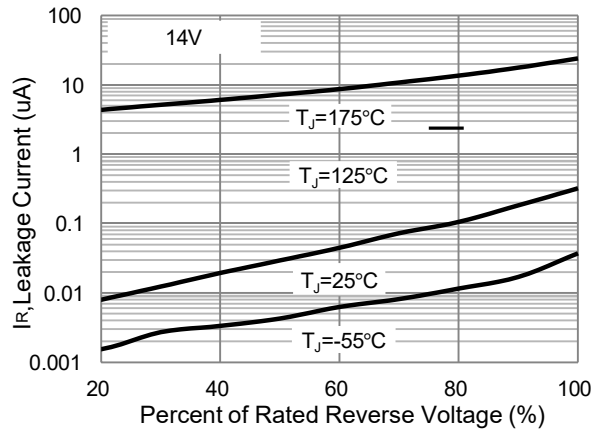


Fig.7 Typical Reverse Characteristics

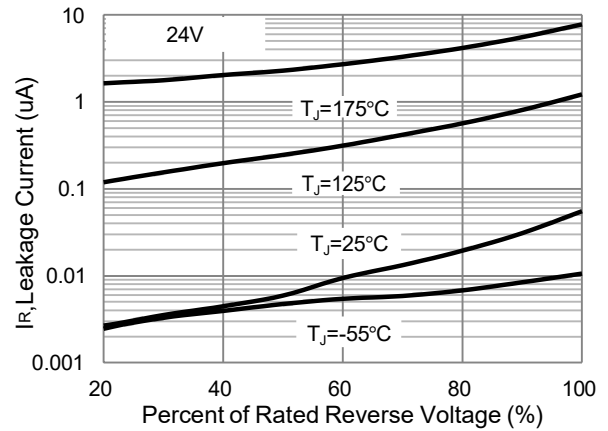


Fig.8 Typical Reverse Characteristics

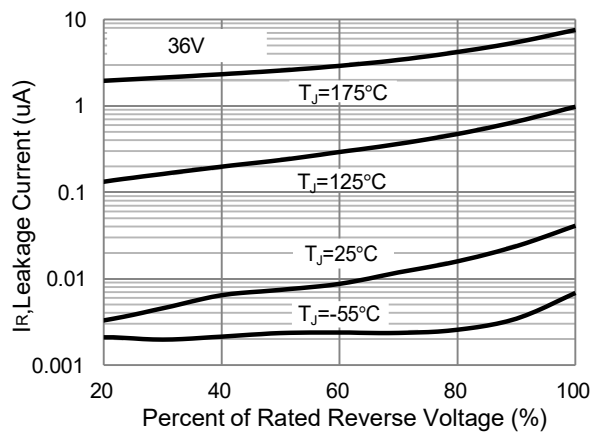


Fig.9 Typical Reverse Characteristics

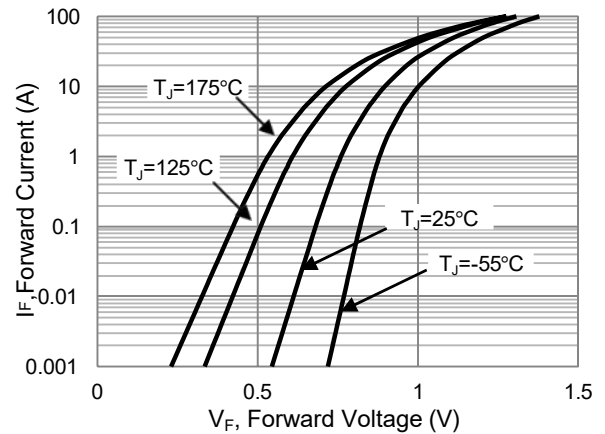
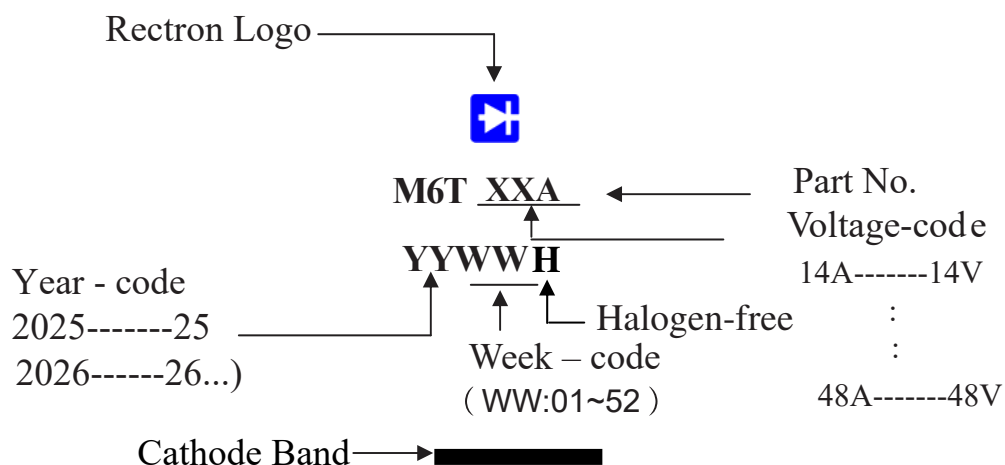


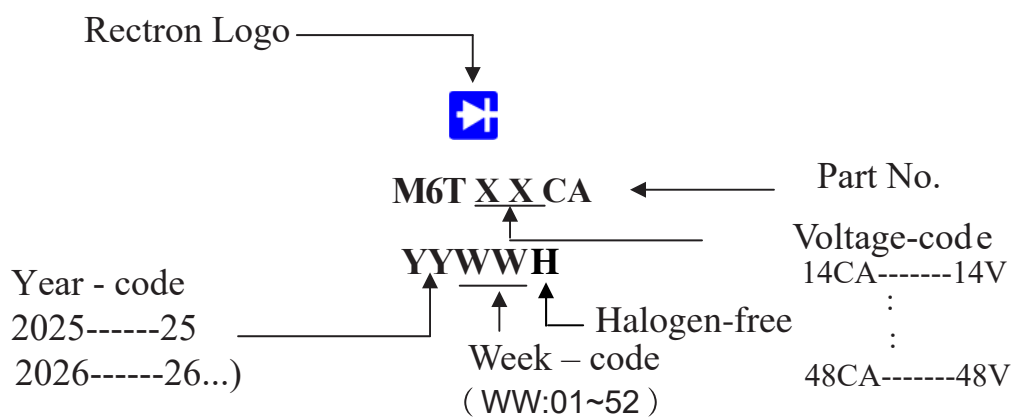
Fig.10 Typical Forward Characteristics

Marking Description

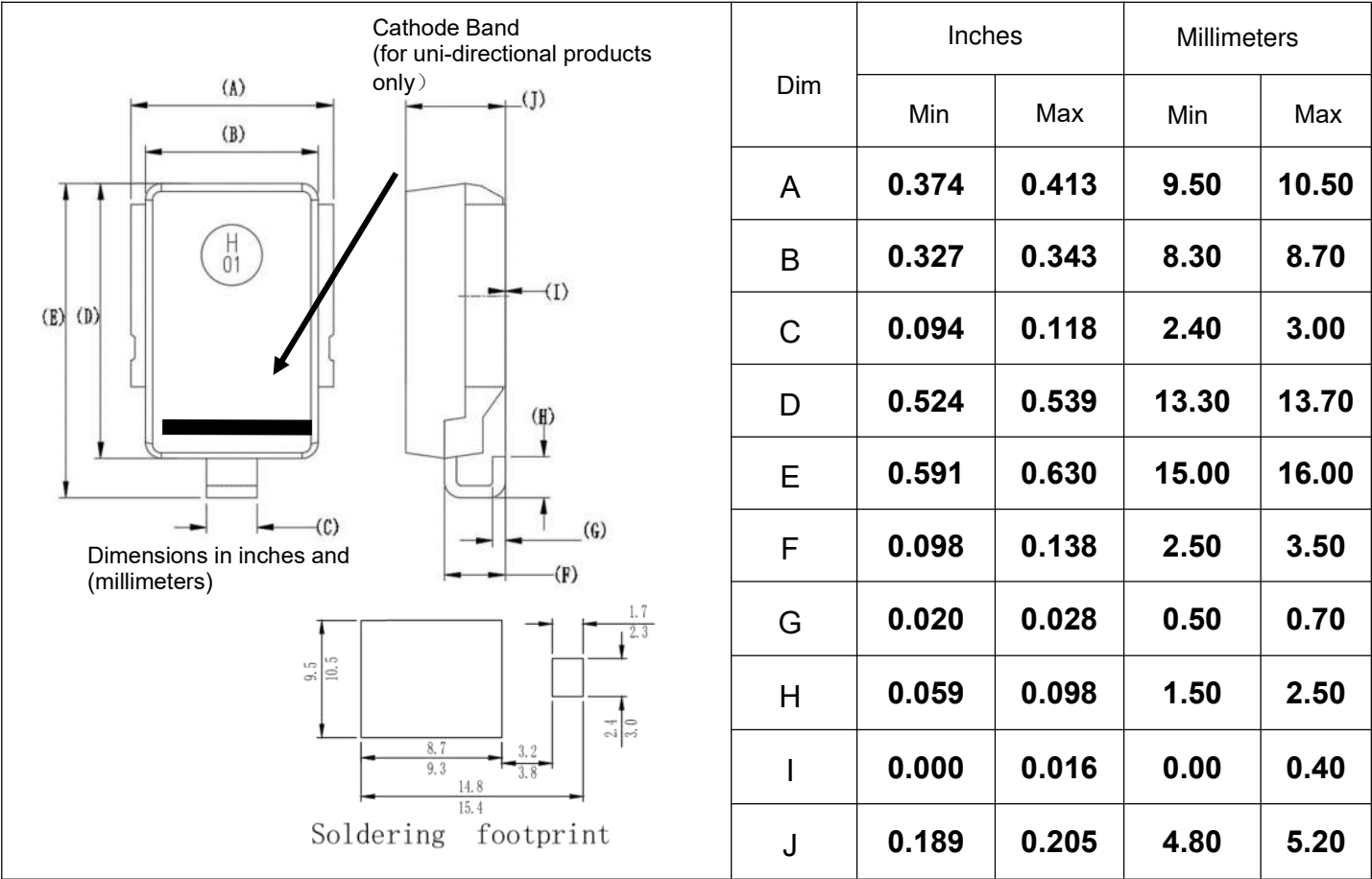
1) SM6TxxA



2) SM6TxxCA



Dimensions (DO-218)

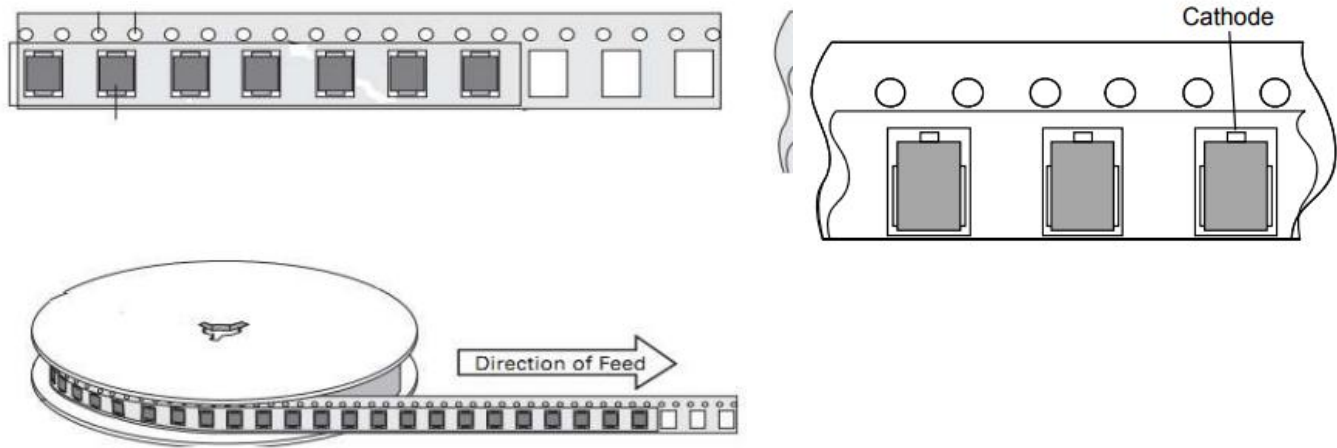


PACKAGING OF DIODE AND BRIDGE RECTIFIERS

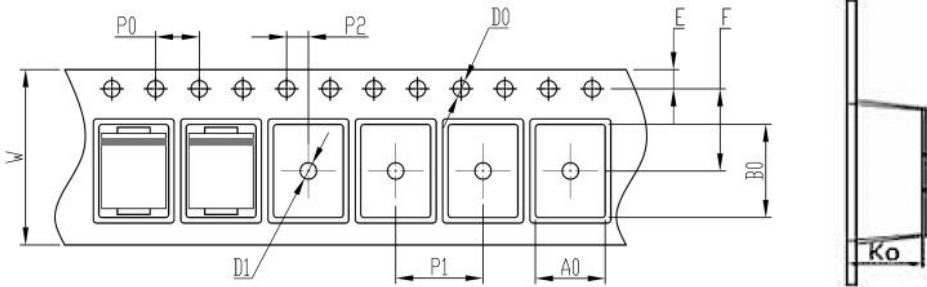
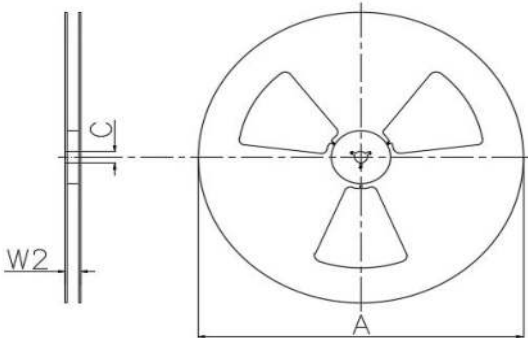
REEL PACK

PACKAGE	PACKING CODE	EA PER REEL	EA PER INNER BOX	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
DO218	-W	750	750	330	430*430*425	6,000	20.8

Taping Orientation



Packaging

Tape	Symbol	Dimension (mm)
	W	24±0.3
	E	1.75±0.3
	F	11.5±0.3
	D0	1.50±0.3
	D1	1.5±0.3
	P0	4.0±0.3
	P1	16±0.3
	P2	2.0±0.3
	A0	10.6±0.3
	B0	15.9±0.3
	K0	5.85±0.3
	A	330±2
	C	13±0.5
	W2	29±2

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