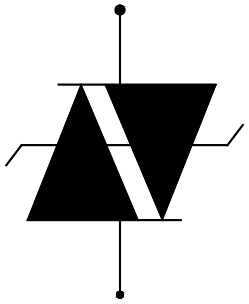
Features

- For surface mounted applications to optimize board space
- Low profile package
- Bidirectional crowbar protection
- Low leakage current : I = 5uA max
- Low on-state voltage
- Low Capacitance
- Response Time is < 1us
- YD/T 950 IEC 61000-4-5
- YD/T 993 ITU K.20/21
- YD/T 1082 TIA-968-A
- GR 1089 Intra-building
- Solid-state silicon technology
- Meets MSL 1 Requirements
- ROHS compliant



Schematic Diagram

Maximum Ratings and Electrical Characteristics

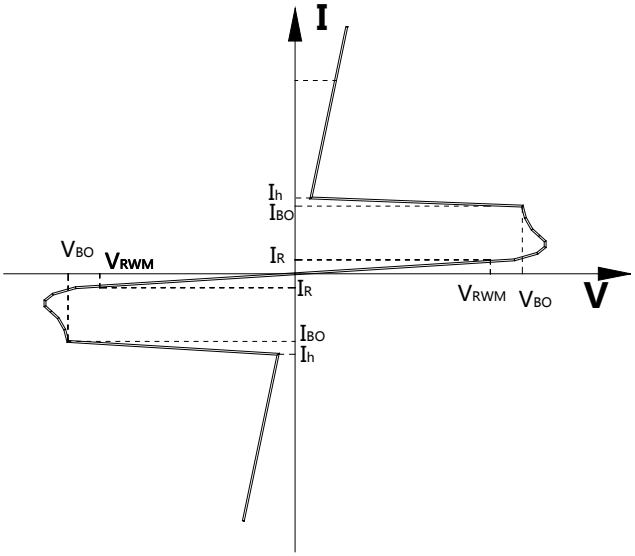
Symbol	Parameter		Value	Unit
I_{PP}	Non-repetitive peak pulse current	10/1000 us 2/10 us 8/20 us	100 150 150	A
V_{PP}	Non-repetitive peak pulse voltage	10/700us	4000	V
V_{ESD}	ESD Rating per IEC61000-4-2：	Contact Air	8 15	KV
Ts	Storage temperature range		-40 to +150	℃
Tj	Maximum junction temperature		150	℃

Maximum ratings are those values beyond which device damage can occur. Maximum ratings applied to the device are individual stress limit values (not normal operating conditions) and are not valid simultaneously. If these limits are exceeded, device functional operation is not implied,damage may occur and reliability may be affected.

**Other voltages may be available upon request.*

Electrical Parameters

Symbol	Parameter
V_{RM}	Stand-off voltage
V_{BR}	Breakdown voltage
V_{BO}	Switching Voltage
I_{BO}	Break over current
I_{RM}	Leakage current at VRM
I_{PP}	Peak pulse current
I_H	Holding current
V_T	On-state Voltage at I_T
C_O	Off-state Capacitance



Parameter	TestsConditions	Min.	Typ.	Max.	Unit
V_{RM}	I_{RM}=1μA	6	10	15	V
I_{RM}	V_{RM}			5	uA
V_{BO}	1KV/μs		12	25	V
V_{TM}	I_T=2.2A			4	V
I_H	10A，10/1000μs	35			mA
C_O	2V ，1MHz		25		pF
I_S	VTCMP=14			800	mA

Typical electrical characterist applications

Rating and Characteristics Curves

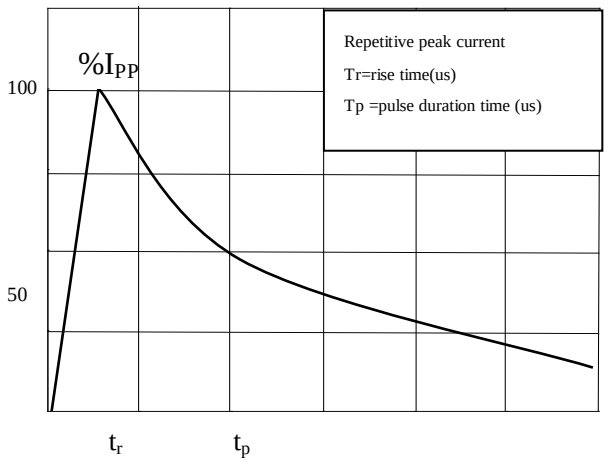


Fig.1 Pulse Waveform (5/310us)

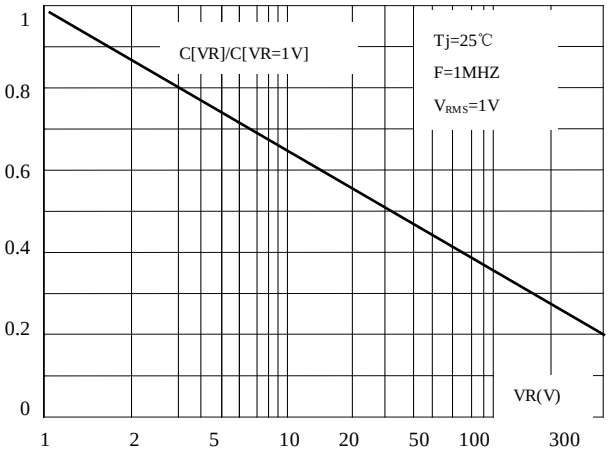


Fig. 2 Relation Variation Of Junction Capacitance Versus Reverse Voltage Applied (Typical Values)

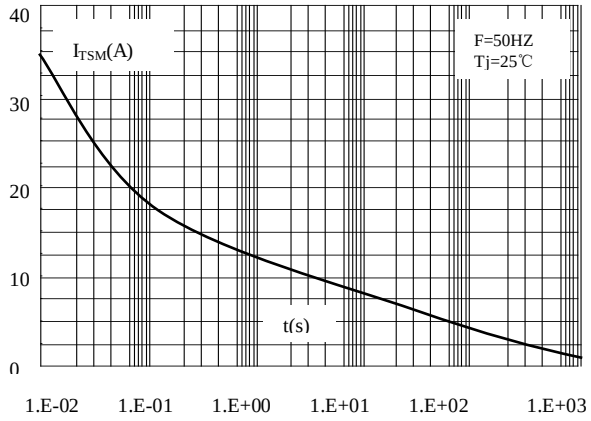


Fig.3 Non Repetitive Surge Peek On-State Current Versus Overload Duration

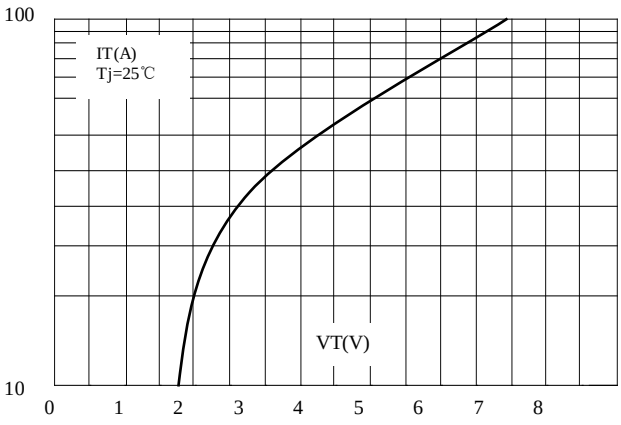


Fig.4 On-State Voltage Versus On-State Current (Typical Values)

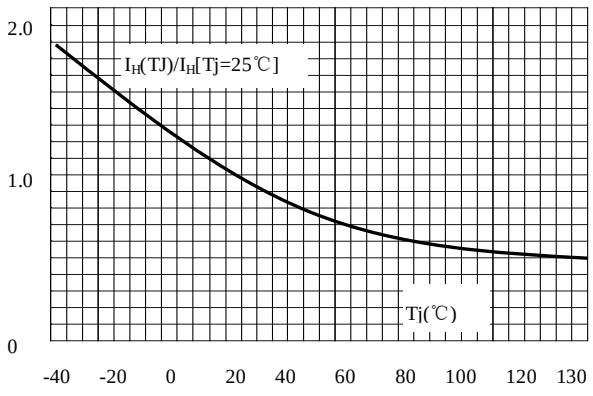


Fig.5 Relative Variation of Hold Current Versus Junction Temperature

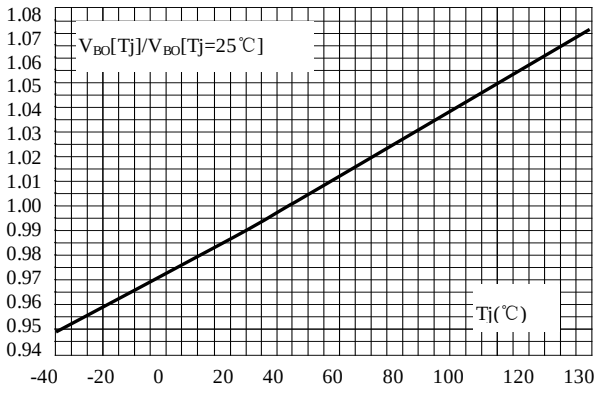


Fig.6 Relative Variation of Break Over Voltage Versus Junction Temperature

Typical electrical characterist applications

Rating and Characteristics Curves

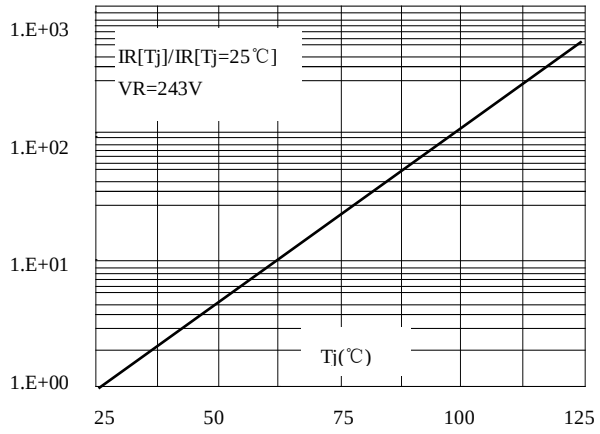


Fig.7 Relative Variation Of Leakage Current Versus Reverse Voltage (Typical Values)

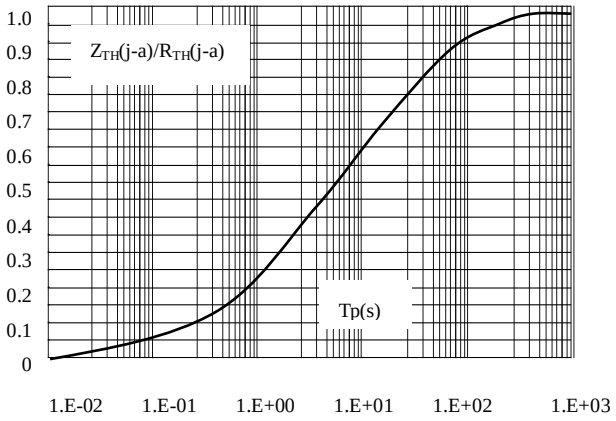
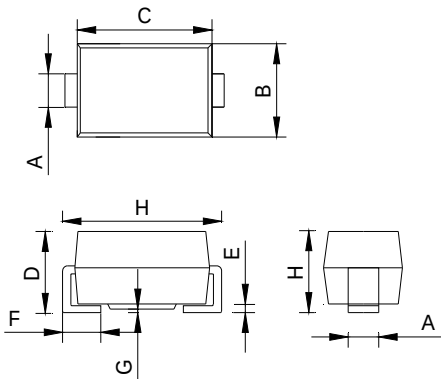


Fig.8 Variation Of Thermal Impedance Junction To Ambient Versus Pulse Duration

Package Information

Mechanical Data

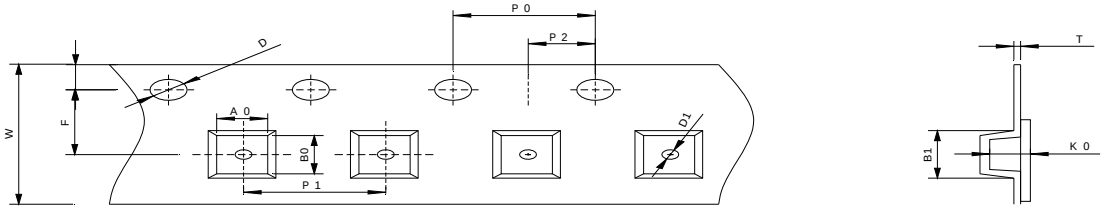
- Case: SMA
- Case Material: Molded Plastic. UL Flammability
- Classification Rating 94V-0
- Polarity Indicator: Cathode Band (Note: Bi-directional devices have no polarity indicator.)
- Weight: 0.064 grams (approximate)



SMA

DIM	Millimeters			Inches		
	Min	Nom	Max	Min	Nom	Max
A	1.25	1.45	1.65	0.049	0.057	0.065
B	2.40	2.67	2.79	0.095	0.105	0.110
C	3.39	3.95	4.60	0.133	0.156	0.181
D	1.98	2.14	2.29	0.0779	0.084	0.090
E	0.150	0.200	0.310	0.006	0.009	0.012
F	0.76	1.14	1.52	0.030	0.045	0.060
G	-	-	0.203	-	-	0.008
H	4.80	5.11	5.28	0.194	0.201	0.208

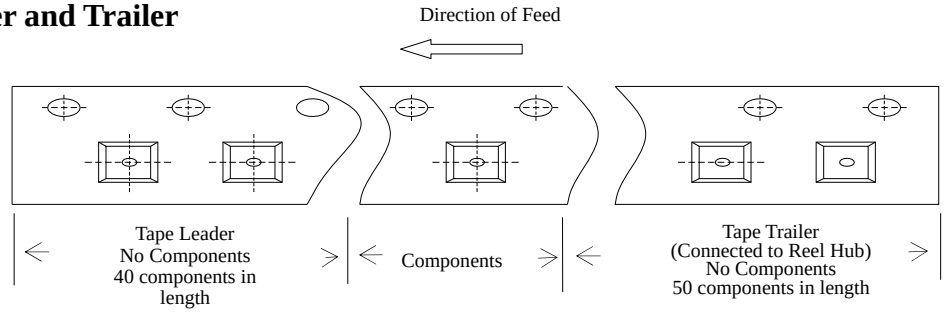
SMA Reel Dim



A0	B0	B1	D	D1	E	F	K0	T	W	P0	P1	P2
2.7	5.3	5.5	1.5	1.0	1.75	3.5	2.5	0.50	12	4.0	4.0	2.0

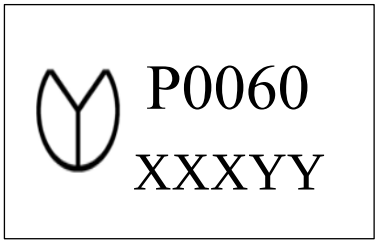
Dimension is in mm

Leader and Trailer



The LEADER is a minimum of 40 components in length and it consists of empty cavities with sealed cover tape
The TRAILER is a minimum of 50 components in length and it consists of empty cavities with sealed cover tape.

Marking Codes



Note:

(1) "P0060" is part number,fixed.

(2) "XXX" is the last 3 characters of the wafer's Lot No., "YY" is internal code.

Ordering Information

Part Number	Working Voltage	Quantity Per Reel	Reel Size
P0060SC-HX	6V	5,000	13 inch