Reverse Voltage: 5.0 to 40 V

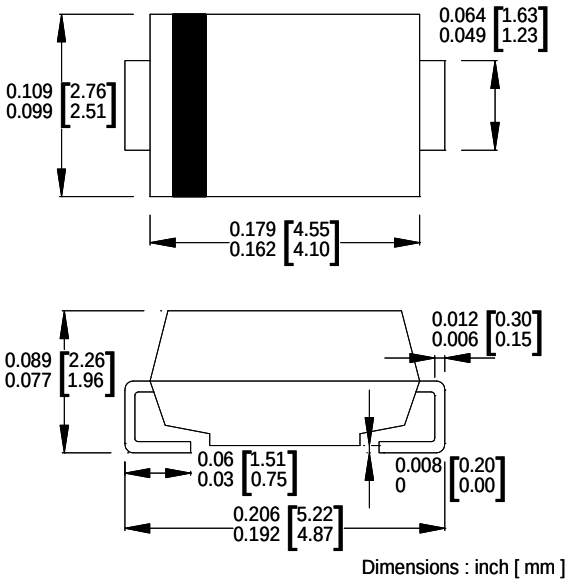
Peak Pulse Power: 600 W

Features

- Glass passivated chip
- 600 W peak pulse power capability with a 10/1000 μs waveform, repetitive rate (duty cycle):0.01 %
- Low leakage
- Uni and Bidirectional unit
- Excellent clamping capability
- Very fast response time
- RoHS compliant

Surface Mount

SMA/ DO-214AC



Dimensions : inch [mm]

Mechanical Data

- Case: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Solderable per MIL-STD-750, method 2026
- Polarity: Color band denotes cathode end except Bipolar
- Mounting position: Any

Maximum Ratings(T_A=25℃ unless otherwise noted)

Parameter	Symbol	Value	UNIT
Peak power dissipation with a 10/1000μs waveform(1)	P_{PP}	600	W
Peak pulse current wih a 10/1000μs waveform(1)	I_{PP}	See Next Table	A
Power dissipation on infinite heatsink at T_L = 75 °C	P_D	3.0	W
Peak forward surge current, 8.3 ms single half sine-wave unidirectional only(2)	I_{FSM}	60	A
Maximum instantaneous forward voltage at 25 A for unidirectional only	V_F	3.5	V
Operating junction and storage temperature range	T_J, T_{STG}	–55 to +150	°C

Note:

(1)Non-repetitive current pulse per Fig.5 and derated above T_A= 25 °C per Fig.1

(2)Measured on 8.3 ms single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum

Ratings and Characteristics Curves (T_A=25℃ unless otherwise noted)

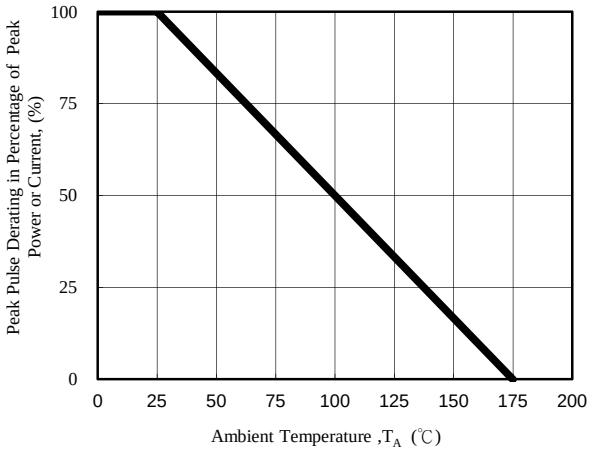


Fig. 1 - Pulse Derating Curve

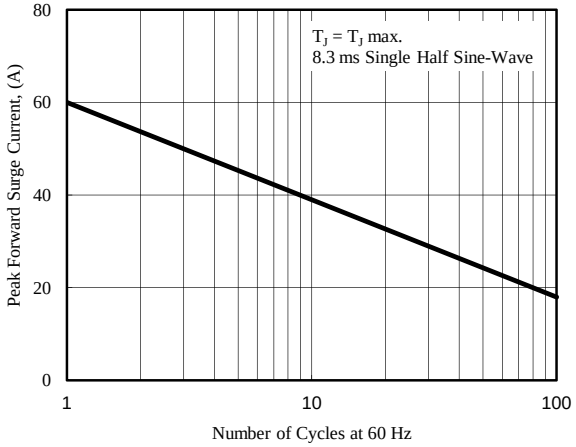


Fig. 2 - Maximum Non-Repetitive Surge Current

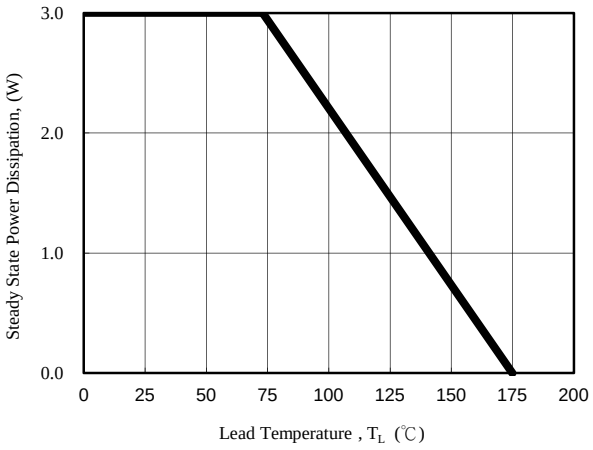


Fig. 3 - Steady State Power Derating Curve

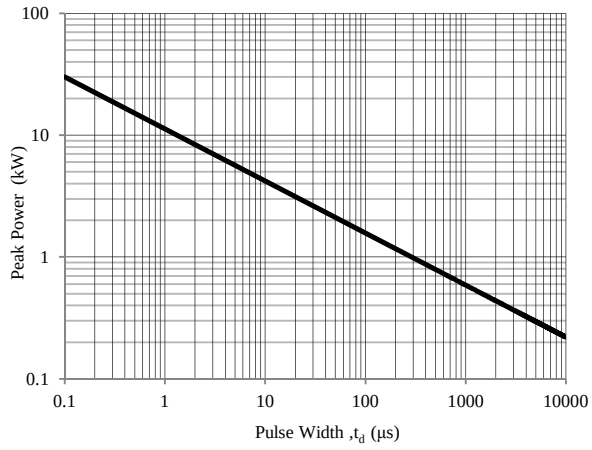


Fig. 4 - Peak Pulse Power Rating Curve

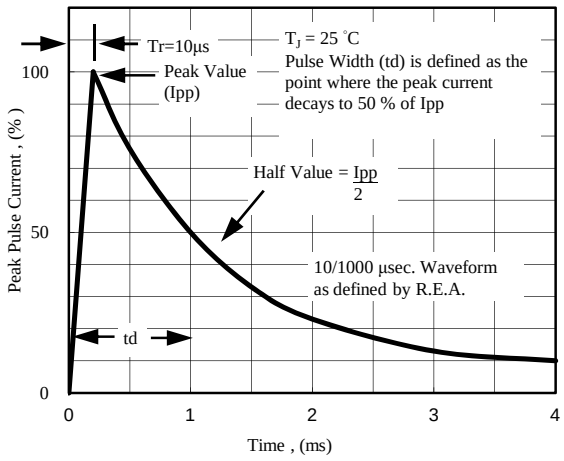


Fig. 5 - Pulse Waveform

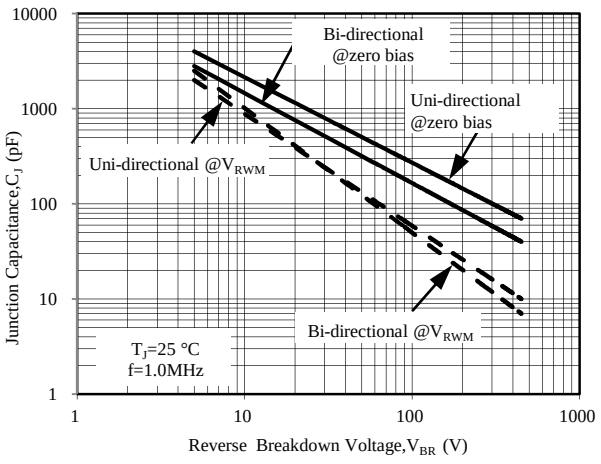


Fig. 6 - Typical Junction Capacitance

Electrical Characteristics(T_A=25℃ unless otherwise noted)

Part Number (Uni)	Part Number (Bi)	Device Marking Code		Breakdown Voltage V_{BR} @I_T			Maximum Reverse Leakage I_R @V_{RWM} (uA)	Working Peak Reverse Voltage V_{RWM} (V)	Maximum Reverse Surge Current I_{PP} (A)	Maximum Clamping Voltage V_C @I_{PP} (V)
		Uni	Bi	Min (V)	Max (V)	I_T (mA)				
TSMA6J5.0A	TSMA6J5.0CA	KE	AE	6.40	7.00	10	800	5.0	65.2	9.2
TSMA6J6.0A	TSMA6J6.0CA	KG	AG	6.67	7.37	10	800	6.0	58.3	10.3
TSMA6J6.5A	TSMA6J6.5CA	KK	AK	7.22	7.98	10	500	6.5	53.6	11.2
TSMA6J7.0A	TSMA6J7.0CA	KM	AM	7.78	8.60	10	200	7.0	50.0	12.0
TSMA6J7.5A	TSMA6J7.5CA	KP	AP	8.33	9.21	1	100	7.5	46.5	12.9
TSMA6J8.0A	TSMA6J8.0CA	KR	AR	8.89	9.83	1	50	8.0	44.1	13.6
TSMA6J8.5A	TSMA6J8.5CA	KT	AT	9.44	10.40	1	10	8.5	41.7	14.4
TSMA6J9.0A	TSMA6J9.0CA	KV	AV	10.00	11.10	1	5.0	9.0	39.0	15.4
TSMA6J10A	TSMA6J10CA	KX	AX	11.10	12.30	1	1.0	10.0	35.3	17.0
TSMA6J11A	TSMA6J11CA	KZ	AZ	12.20	13.50	1	1.0	11.0	33.0	18.2
TSMA6J12A	TSMA6J12CA	LE	BE	13.30	14.70	1	1.0	12.0	30.2	19.9
TSMA6J13A	TSMA6J13CA	LG	BG	14.40	15.90	1	1.0	13.0	27.9	21.5
TSMA6J14A	TSMA6J14CA	LK	BK	15.60	17.20	1	1.0	14.0	25.9	23.2
TSMA6J15A	TSMA6J15CA	LM	BM	16.70	18.50	1	1.0	15.0	24.6	24.4
TSMA6J16A	TSMA6J16CA	LP	BP	17.80	19.70	1	1.0	16.0	23.1	26.0
TSMA6J17A	TSMA6J17CA	LR	BR	18.90	20.90	1	1.0	17.0	21.7	27.6
TSMA6J18A	TSMA6J18CA	LT	BT	20.00	22.10	1	1.0	18.0	20.5	29.2
TSMA6J19A	TSMA6J19CA	LB	BB	21.10	23.30	1	1.0	19.0	19.5	30.8
TSMA6J20A	TSMA6J20CA	LV	BV	22.20	24.50	1	1.0	20.0	18.5	32.4
TSMA6J22A	TSMA6J22CA	LX	BX	24.40	26.90	1	1.0	22.0	16.9	35.5
TSMA6J24A	TSMA6J24CA	LZ	BZ	26.70	29.50	1	1.0	24.0	15.4	38.9
TSMA6J26A	TSMA6J26CA	ME	CE	28.90	31.90	1	1.0	26.0	14.3	42.1
TSMA6J28A	TSMA6J28CA	MG	CG	31.10	34.40	1	1.0	28.0	13.2	45.4
TSMA6J30A	TSMA6J30CA	MK	CK	33.30	36.80	1	1.0	30.0	12.4	48.4
TSMA6J33A	TSMA6J33CA	MM	CM	36.70	40.60	1	1.0	33.0	11.3	53.3
TSMA6J36A	TSMA6J36CA	MP	CP	40.00	44.20	1	1.0	36.0	10.3	58.1
TSMA6J40A	TSMA6J40CA	MR	CR	44.40	49.10	1	1.0	40.0	9.30	64.5

Note:

1. Suffix 'A ' denotes 5% tolerance device. Without 'A' denotes 10% tolerance device
2. Add suffix 'C 'or ' CA ' after part number to specify Bi-directional devices
3. For Bi-Directional devices having V_R of 10 volts and under, the I_R limit is double