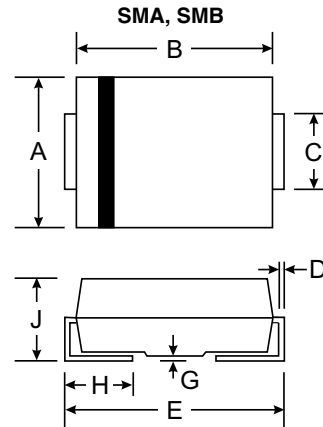


Features

- 400, 600W Peak Pulse Power Dissipation
- 70V Standoff Voltage
- 100V Maximum Clamping Voltage - A requirement of many -48V Backplane Telecom Applications
- Glass Passivated Die Construction
- Fast Response Time: Typically less than 1 ps
- Plastic Material - UL Flammability Classification Rating 94V-0



Mechanical Data

- Case: SMA, SMB Transfer Molded Epoxy
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity Indicator: Cathode Band
- Marking: Date Code and Marking Code
- Weight: SMA 0.064 grams
SMB 0.093 grams

Package	SMAT70A		SMBT70A	
	Min	Max	Min	Max
Dim				
A	2.29	2.92	3.30	3.94
B	4.00	4.60	4.06	4.57
C	1.27	1.63	1.96	2.21
D	0.15	0.31	0.15	0.31
E	4.80	5.59	5.00	5.59
G	0.10	0.20	0.10	0.20
H	0.76	1.52	0.76	1.52
J	2.01	2.62	2.00	2.62

Maximum Ratings @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	SMAT70A	SMBT70A	Unit
Peak Pulse Power Dissipation (Non repetitive current pulse derated above T _A = 25°C)	P _{PK}	400	600	W
Peak Forward Surge Current, 8.3ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method) (Note 2)	I _{FSM}	40	100	A
Instantaneous Forward Voltage @ I _{PP} = 35A (Note 2)	V _F	3.5		V
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150		°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Part Number	Reverse Standoff Voltage	Breakdown Voltage V _{BR} @ I _T (Note 3)		Test Current	Max. Reverse Leakage @ V _{RWM}	Max. Clamping Voltage @ I _{PP}	Max. Peak Pulse Current I _{PP}	Typical Junction Capacitance (Note 4)	Typical Voltage Temp. Variation of V _{BR}	Marking Code
	V _{RWM} (V)	Min (V)	Max (V)	I _T (mA)	I _R (μA)	V _C (V)	(A)	(pF)	mV/°C	
SMAT70A	70	77.8	89.5	1.0	5.0	100	3.5	55	80	KEX
SMBT70A	70	77.8	89.5	1.0	5.0	100	5.3	80	80	NPX

- Notes:
1. Measured with 8.3ms single half sine-wave. Duty cycle = 4 pulses per minute maximum.
 2. V_{BR} measured with I_T current pulse = 300μs.
 3. f = 1MHz, V_R = 0VDC.

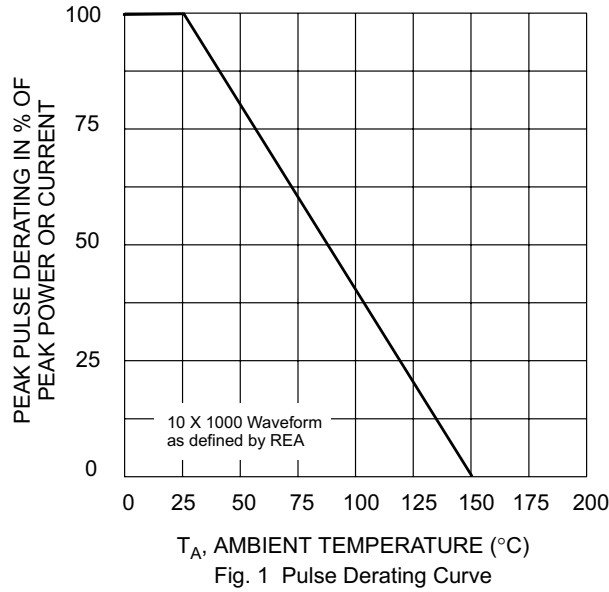


Fig. 1 Pulse Derating Curve

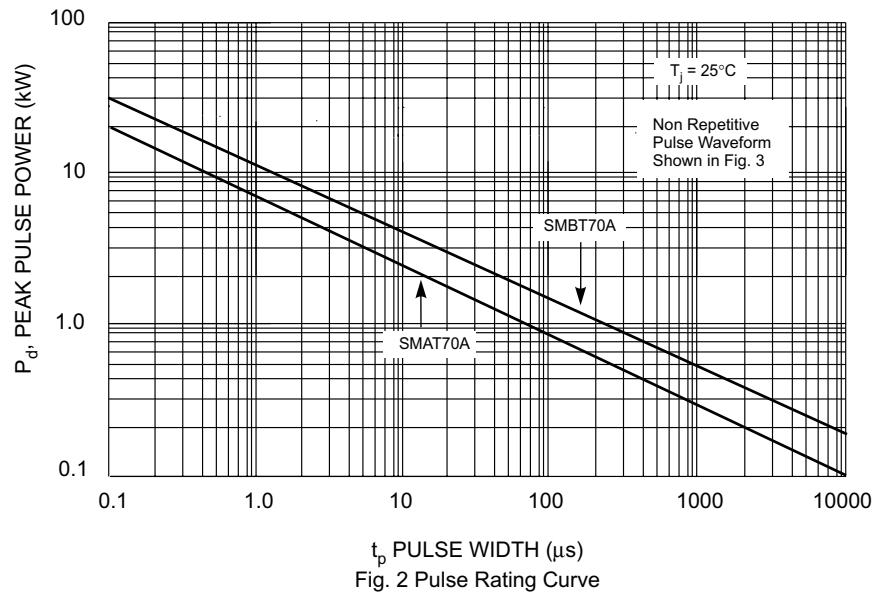


Fig. 2 Pulse Rating Curve

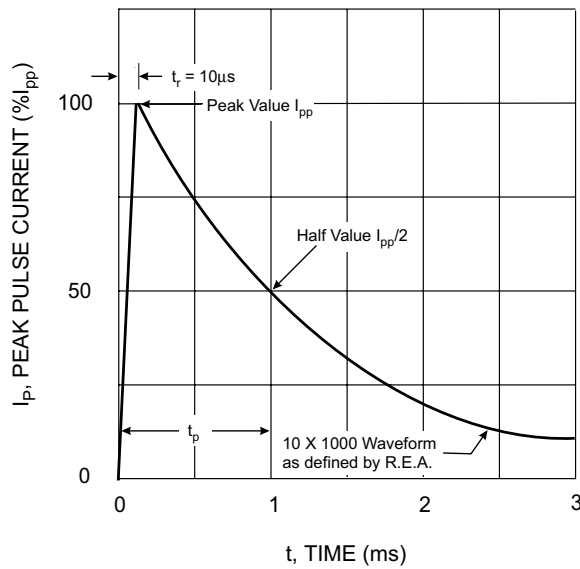


Fig. 3 Pulse Waveform