

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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SMAT70A/SMBT70A

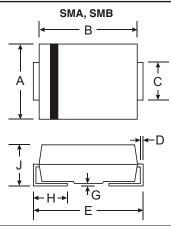
400W, 600W SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR

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
- Case Material UL Flammability Rating 94V-0
- Moisture sensitivity: Level 1 per J-STD-020A
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity Indicator: Cathode Band
- Marking: Date Code (See Page 3) and Marking Code (See Page 1)
- Weight: SMA 0.064 grams SMB 0.093 grams
- Ordering Information: See Page 3



	SMA	T70A	SMBT70A		
Package	SI	ИΑ	SMB		
Dim	Min Max		Min	Max	
Α	2.29	2.92	3.30	3.94	
В	4.00	4.60	4.06	4.57	
С	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	
Н	0.76	0.76 1.52		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		А
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

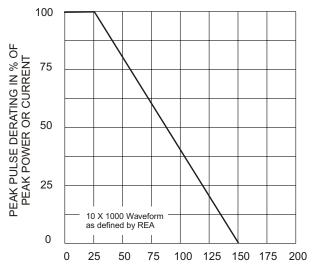
Electrical Characteristics @T_A = 25°C unless otherwise specified

	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 3)	Typical Voltage Temp. Variation of V _{BR}	Marking Code
	V _{RWM} (V)	Min (V)	Max (V)	I _T (mA)	I _R (μ A)	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

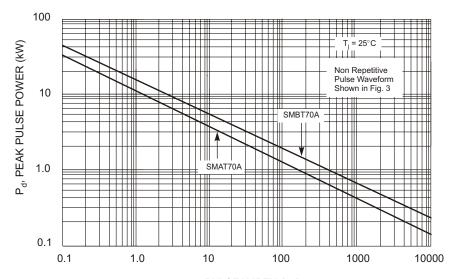
Notes: 1. Measured with 8.3ms single half sine-wave. Duty cycle = 4 pulses per minute maximum.

- 2. V_{BR} measured with I_T current pulse = 300 μ s.
- 3. f = 1MHz, $V_R = 0VDC$.

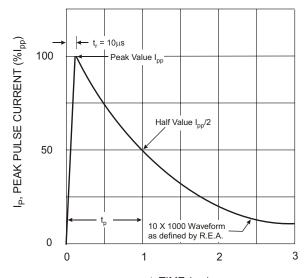




T_A, AMBIENT TEMPERATURE (°C) Fig. 1 Pulse Derating Curve



 t_p PULSE WIDTH (μ s) Fig. 2 Pulse Rating Curve



t, TIME (ms) Fig. 3 Pulse Waveform



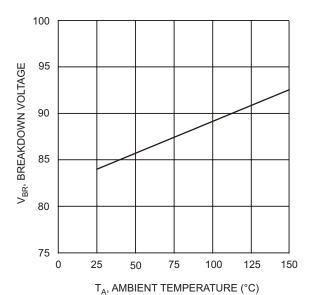


Fig. 4 Average Breakdown Voltage vs. Ambient Temperature

Ordering Information (Note 4)

Device	Packaging	Shipping		
SMAT70A-13 SMBT70A-13	SMA SMB	5000/Tape & Reel		

Notes: 4. For Packaging Details, go to our website at http://www.diodes.com/datasheets/ap02007.pdf.

Marking Information



XXX = Product type marking code (See Sheet 1)

| | = Manufacturers' code marking

YWW = Date code marking

Y = Last digit of year ex: 2 for 2002

WW = Week code 01 to 52