

Maximum Ratings (@T_A = +25°C unless otherwise specified.)

Characteristic	Symbol	SMAT70A	SMBT70A	Unit
Peak Pulse Power Dissipation	P _{PK}	400	600	W
(Non-repetitive current pulse derated above T _A = +25°C)				V V
Peak Forward Surge Current, 8.3ms Single Half-Sine Wave	I _{FSM}	40	100	۸
Superimposed on Rated Load (Note 5)				A
Instantaneous Forward Voltage @ IPP = 35A (Note 5)	V _F	3.5 V		V

Thermal Characteristics

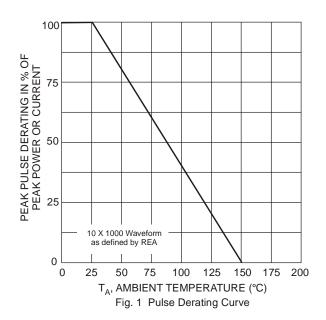
Characteristic	Symbol	Value	Unit
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150	°C

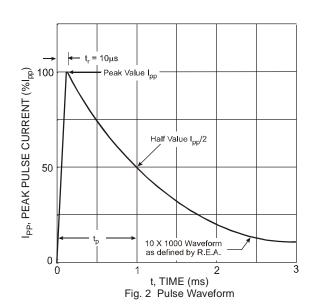
Electrical Characteristics (@T_A = +25°C unless otherwise specified.)

Part Number	Reverse Standoff Voltage	V_{BR}	age	Test Current	Max. Reverse Leakage @ V _{RWM}	Max. Clamping Voltage @ I _{pp}	Max. Peak Pulse Current I _{pp}	Typical Total Capacitance (Note 6)	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	140	80	KEX
SMBT70A	70	77.8	89.5	1.0	5.0	100	5.3	290	80	NPX

5. V_{BR} measured with I_T current pulse = 10 ~ 15 ms. Notes:

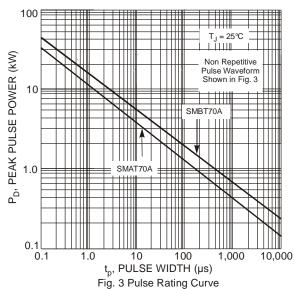
6. f = 1MHz, $V_R = 0VDC$.











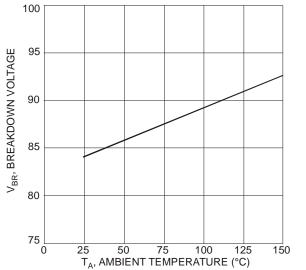
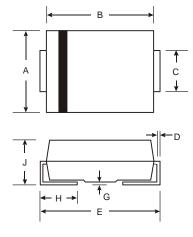


Fig. 4 Average Breakdown Voltage vs. Ambient Temperature

Package Outline Dimensions

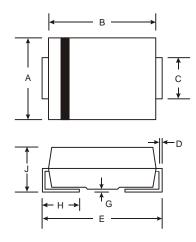
Please see AP02002 at http://www.diodes.com/datasheets/ap02002.pdf for the latest version.





SMA				
Dim	Min	Max		
Α	2.29	2.92		
В	4.00	4.60		
С	1.27	1.63		
D	0.15	0.31		
Е	4.80	5.59		
G	0.05	0.20		
Н	0.76	1.52		
J	2.01	2.30		
All Dimensions in mm				

(2) SMB



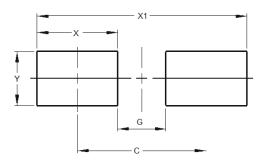
SMB				
Dim	Min	Max		
Α	3.30	3.94		
В	4.06	4.57		
С	1.96	2.21		
D	0.15	0.31		
Е	5.00	5.59		
G	0.05	0.20		
H	0.76	1.52		
J	2.00	2.50		
All Dimensions in mm				



Suggested Pad Layout

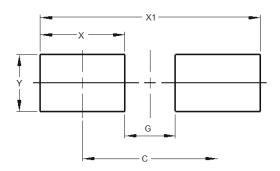
Please see AP02001 at http://www.diodes.com/datasheets/ap02001.pdf for the latest version.

(1) SMA



Dimensions	Value (in mm)
С	4.00
G	1.50
Х	2.50
X1	6.50
Υ	1.70

(2) SMB



Dimensions	Value (in mm)
С	4.30
G	1.80
Х	2.50
X1	6.80
Υ	2.30



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