

Transient Voltage Suppressor Diode Surface Mount

multicompPRO

**RoHS
Compliant**



Description

This series is designed specifically to protect sensitive electronic equipment from voltage transients induced by lightning and other transient voltage events.

Application

TVS devices are ideal for the protection of I/O Interfaces, Vcc bus and other vulnerable circuits used in telecom, computer, industrial and consumer electronic applications.

Features

- For surface mounted applications
- Low profile package
- 400W Peak pulse power capability at 10/1000 μ s waveform
- Excellent clamping capability.
- Typical IR less than 1 μ A above 10V
- Fast response time: typically less than 1.0ps from 0 Volts to VBR min
- High temperature soldering: 260°C / 10s
- IEC 61000-4-2 (ESD) : $\pm$ 30kV (Contact) / $\pm$ 30kV (Air)
- By cathode band denotes uni-directional device, none cathode band denotes bi-directional device
- Case: SMA (DO-214AC) package
- UL flammability classification rating 94V-0
- Weight: 0.07grams

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

Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation at TA=25°C by 10/1000 μ s Waveform (Note 1)	P _{PP}	400	W
Power Dissipation on Infinite Heat Sink at TL=50°C	P _{M(AV)}	3.3	
Peak Forward Surge Current, 8.3ms Single Half Sine Wave (Note 2)	I _{FSM}	40	A
Max. Instantaneous Forward Voltage at 30A (Note 2)	V _F	5	V
Operating Temperature Range	T _J	-55 to +150	°C
Storage Temperature Range	T _{STG}		

Note:

1. Non-repetitive current pulse, per Fig.4 and derated above T_j (initial) = 25°C per Fig.1
2. For unidirectional units only

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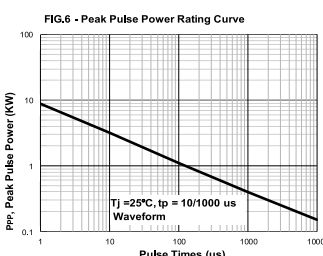
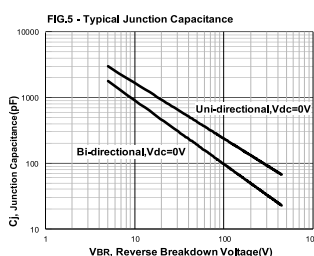
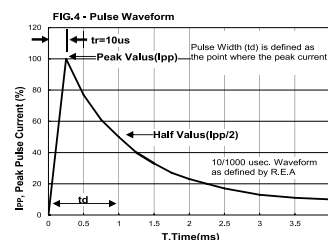
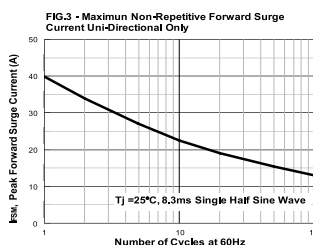
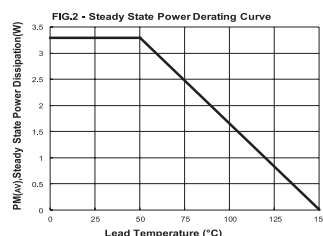
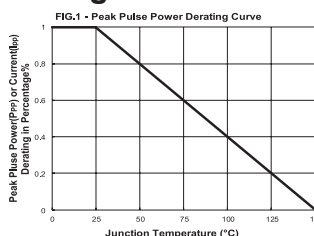
Electrical Characteristics (@TA = 25°C, unless otherwise specified.)

Part Number		Marking Code		Reverse Working Voltage	Reverse Breakdown Voltage VB (V)			Reverse Leakage (Max)	Reverse Clamping Voltage (Max)	Peak Pulse Current (Max)
Uni.	Bi.	Uni.	Bi.	VRWM (V)	Min.	Max.	@ IT(mA)	IR(μA)@VR	Vc(V)@IPP	IPP(A)
SMAJ70A	-	SMAJ70A	-	70	77.8	86	1	1	113	3.6

Note:

- Suffix "A" denotes 5% tolerance device.
- Add suffix "CA" after part number to specify bi-directional devices.
- The IR limit is double for bi-directional devices.

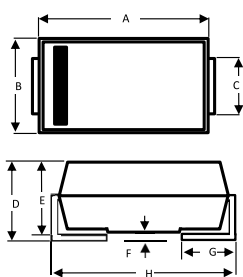
Rating and Characteristic Curves



Device Schematic



Diagram



Dimensions : Millimetres

Dim.	Min.	Max
A	3.99	4.5
B	2.5	2.79
C	1.2	1.7
D	1.98	2.4
E	1.98	2.2
F	-	0.203
G	0.76	1.52
H	4.93	5.28

Part Number Table

Description	Part Number
TVS Diode, Unidirectional, 400W, 113V, 3.6A, SMA	SMAJ70A

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