

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
- 1500W 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)
- Case: SMC(DO-214AB) package
- UL flammability classification rating 94V-0
- By cathode band denotes uni-directional device, none cathode band denotes bi-directional device
- Weight: 0.28 grams

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}	600	W
Power Dissipation on Infinite Heat Sink at T _L =50°C	P _{M(AV)}	5	
Peak Forward Surge Current, 8.3ms Single Half Sine Wave (Note 2)	I _{FSM}	80	A
Maximum 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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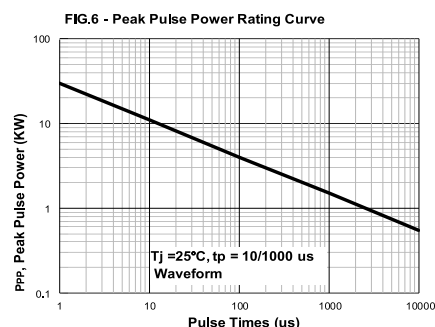
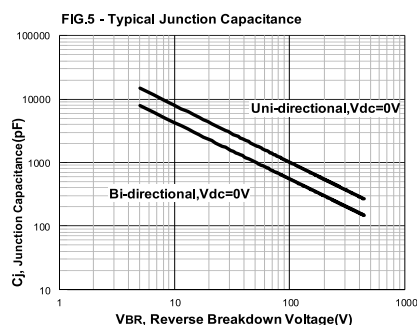
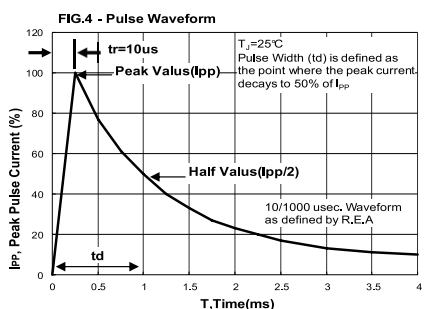
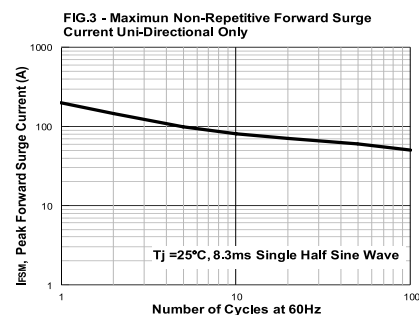
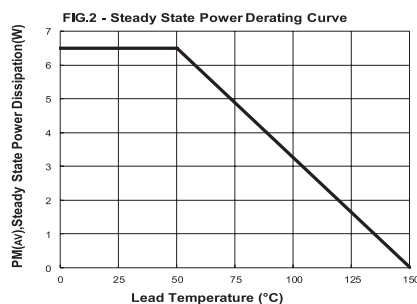
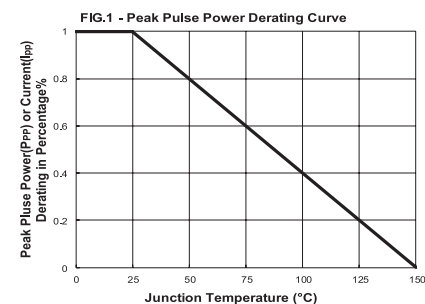
Electrical Characteristics (@TA = 25°C, unless otherwise specified.)

Part Number		Marking Code		Reverse Working Voltage	Reverse Breakdown Voltage V _B (V)			Reverse Leakage (Max)	Reverse Clamping Voltage (Max)	Peak Pulse Current (Max)
Uni.	Bi.	Uni.	Bi.	V _{RWM} (V)	Min.	Max.	@ I _T (mA)	I _R (μA)@V _R	V _c (V)@I _{PP}	I _{PP} (A)
-	SMCJ26CA	-	SMCJ26CA	26	28.9	31.9	1	1	42.1	35.7
SMCJ30A	SMCJ30CA	SMCJ30A	SMCJ30CA	30	33.3	36.8	1	1	48.4	31
-	SMCJ36CA	-	SMCJ36CA	36	40	44.2	1	1	58.1	25.9

Note:

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

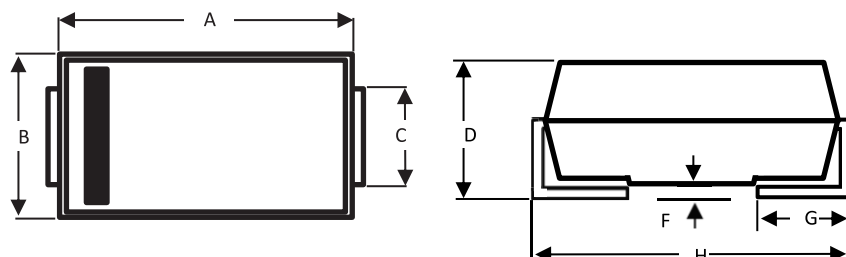
Rating and Characteristic Curves



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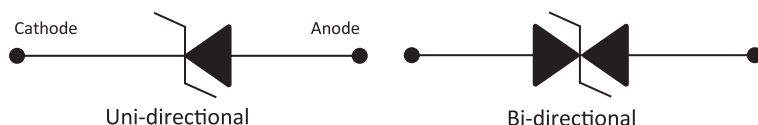
Diagram



Dim.	Min.	Max
A	4.22	4.7
B	3.4	3.94
C	1.9	2.1
D	0.9	1.42
E	5.21	5.59
F	-	0.23
G	0.15	0.25
H	1.95	2.6

SMC (DO-214AB) package

Device Schematic



Part Number Table

Description	Part Number
TVS Diode, Bidirectional, 1500W, 42.1V, 35.7A, SMC	SMCJ26CA
TVS Diode, Unidirectional, 1500W, 48.4V, 31A, SMC	SMCJ30A
TVS Diode, Bidirectional, 1500W, 48.4V, 31A, SMC	SMCJ30CA
TVS Diode, Bidirectional, 1500W, 58.1V, 25.9A, SMC	SMCJ36CA

Dimensions : Millimetres

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