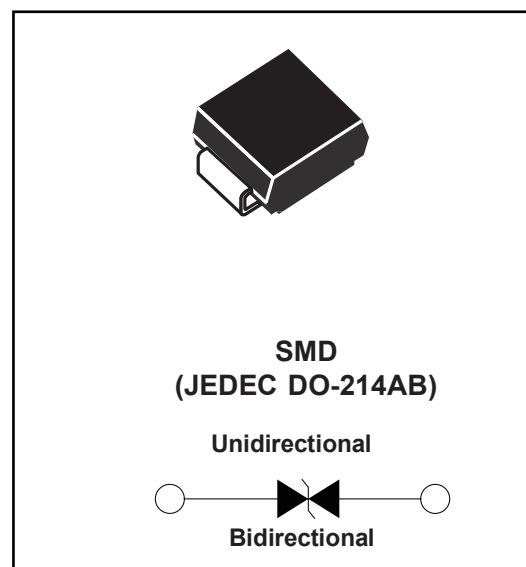


Features

- For surface mounted applications
- Low-profile package
- Ideal for automated placement
- Available in Unidirectional and Bidirectional
- 6000W peak pulse power capability with a 10/1000 μ s waveform
- Low incremental surge resistance, excellent clamping capability
- Very fast response time
- High temperature soldering guaranteed: 260 °C/10 s at terminals



Typical Applications

Use in sensitive electronics protection against voltage transients induced by inductive load switching and lighting on ICs, MOSFET, signal lines of sensor units for consumer, computer, industrial, telecommunication.

■Maximum Ratings (T_a=25°C Unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Power Dissipation at T _L =25 °C by 10/1000 μ S waveform ⁽¹⁾⁽²⁾ (Fig.2)	P _{PPM}	6000	W
Peak Power Dissipation on Infinite Heat Sink at T _L =50 °C	P _D	6.5	W
Peak Forward Surge Current,8.3 ms single half sinewave superimposed on rated load (JEDEC Method) ⁽³⁾	I _{FSM}	300	A
Maximum Instantaneous Forward Voltage at 100 A for Unidirectional Only	V _F	5.0	V
Operating Temperature Range	T _J	-65 to 150	°C
Storage Temperature Range	T _{STG}	-65 to 175	°C
Typical Thermal Resistance Junction to Lead	R _{θJL}	15	°C / W
Typical Thermal Resistance Junction to Ambient	R _{θJA}	75	°C / W

Notes

1.Non-repetitive current pulse, per Fig. 4 and derated above T_J(initial)=25 °C per Fig. 3.

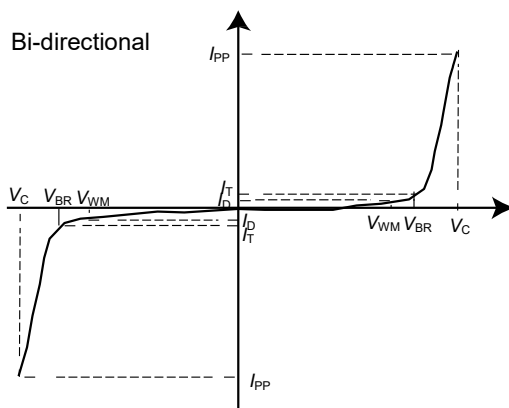
2.Mounted on 8.0 mm² land areas.

3.Measured of 8.3 ms single half sine-wave or equivalent square wave, duty cycle=4 pulses per minute maximum.

■Electrical Characteristics (TA=25°C unless otherwise noted)

Part Number	Breakdown Voltage $V_{BR}@I_T$			Maximum Reverse Leakage I_R @ V_{RWM} (μA)	Working Peak Reverse Voltage V_{RWM} (V)	Maximum Reverse Surge Current $I_{PP}^{(2)}$ (A)	Maximum Clamping Voltage V_C @ I_{PP} (V)
	Min(V)	Max (V)	$I_T^{(1)}$ (mA)				
SMD60J36B	40.0	44.2	1.0	5.0	36.0	103.3	58.1

I-V Curve Characteristics



Performance Curve for Reference (T_A=25 °C unless otherwise noted)

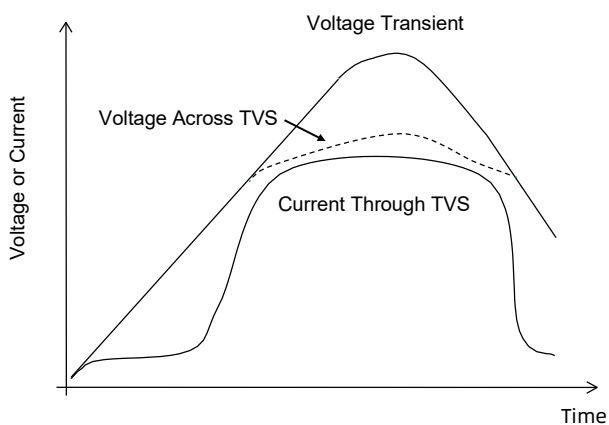


FIGURE 1 TVS Transients Clamping Waveform

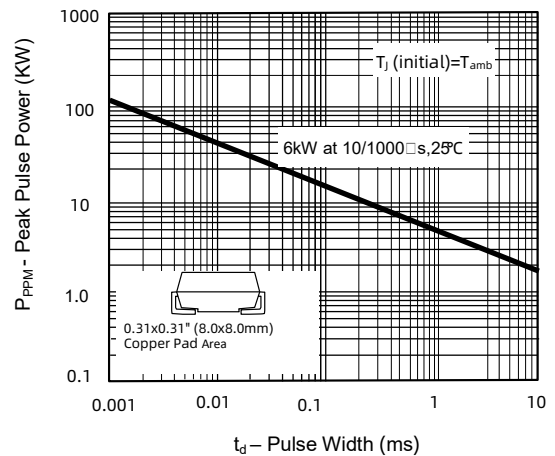


FIGURE 2 Peak Pulse Power Rating Curve

■ Characteristics(Typical)

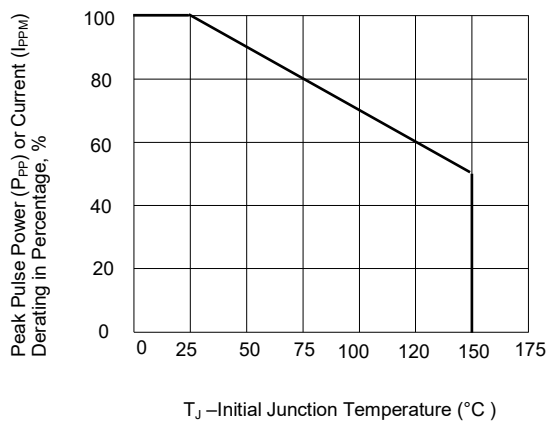


FIGURE 3 Peak Pulse Power Derating Curve

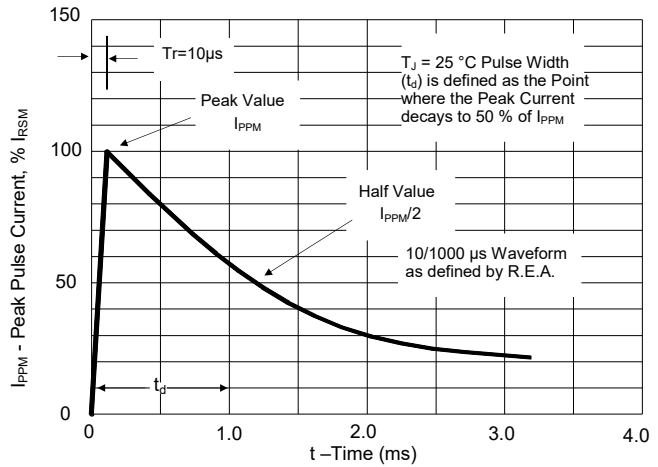


FIGURE 4 Pulse Waveform

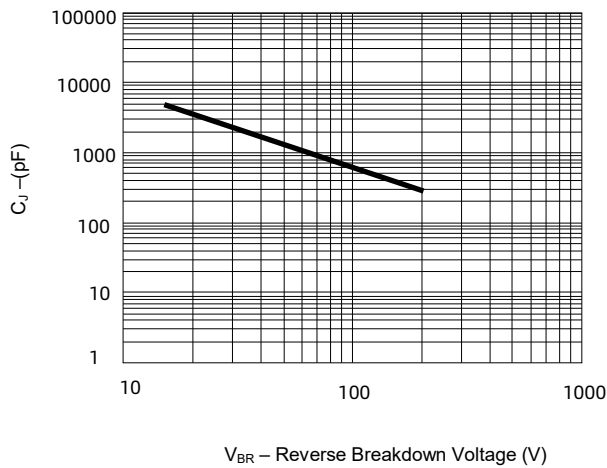


FIGURE 5 Typical Junction Capacitance

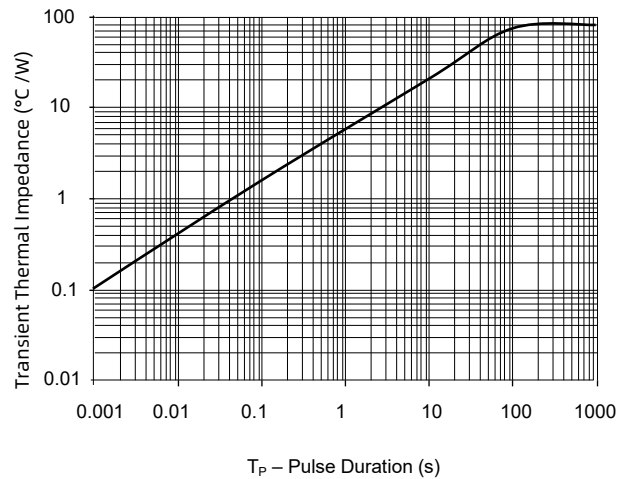


FIGURE 6 Typical Transient Thermal Impedance

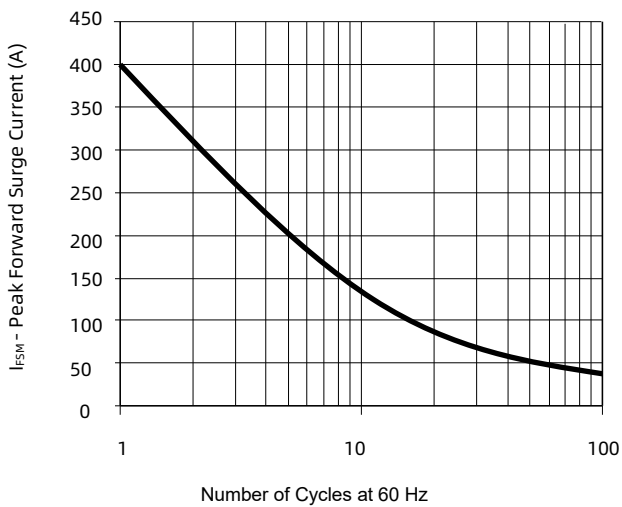


FIGURE 7 Maximum Non-Repetitive Forward Surge Current
Uni-Directional only

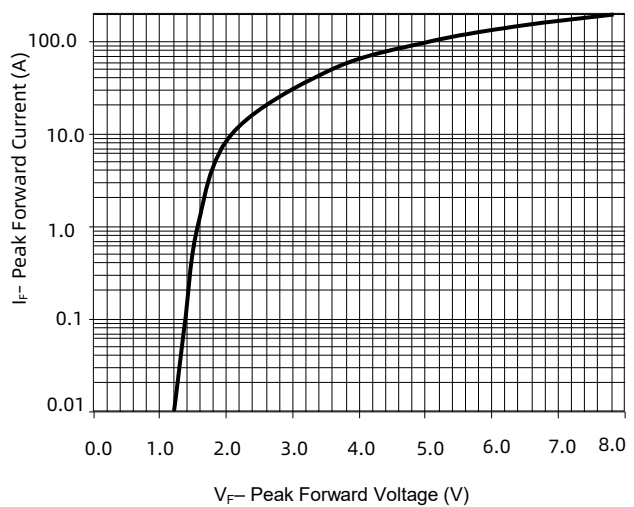
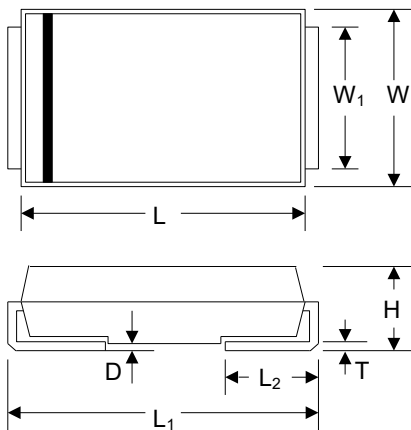


FIGURE 8 Peak Forward Drop vs Peak Forward Current
(Typical Values)

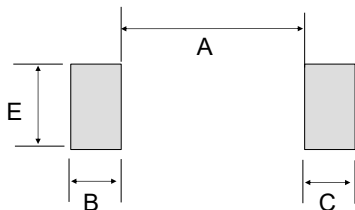
■ Outline Dimensions

DO-214AB(SMD)



Symbol	Millimeters		Inches	
	Min.	Max.	Min.	Max.
L	6.600	7.110	0.260	0.280
W	5.590	6.220	0.220	0.245
W ₁	2.900	3.200	0.114	0.126
H	2.060	2.620	0.079	0.103
T	0.152	0.305	0.006	0.012
L ₁	7.750	8.130	0.305	0.320
L ₂	0.760	1.520	0.030	0.060
D	-	0.203	-	0.008

■ Suggested pad layout



Symbol	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	-	4.200	-	0.165
B	2.400	-	0.094	-
C	2.400	-	0.094	-
E	3.300	-	0.129	-