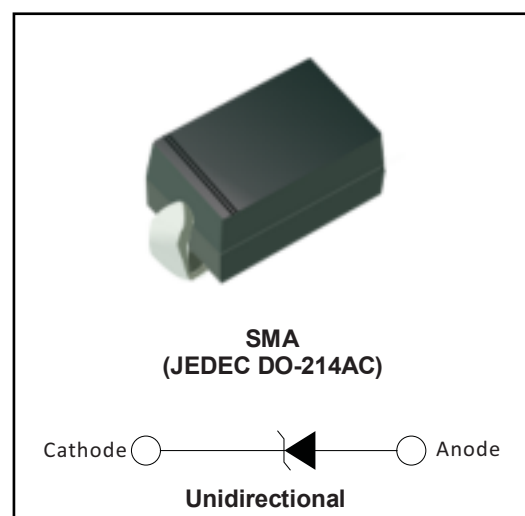


Automotive 600W

Features

- For surface mounted applications
- Low-profile package
- Ideal for automated placement
- Available in Unidirectiona
- 600W 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 (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	Max
Peak power dissipation, with a 10/1000us waveform ⁽¹⁾ ⁽²⁾ (Fig.1)	P _{PPM}	W	600
Peak pulse current, with a 10/1000us waveform ⁽¹⁾	I _{PPM}	A	See Next Table
Power dissipation, on infinite heat sink at TL=75°C	P _D	W	3.3
Peak forward surge current, 8.3 ms single half sine-wave unidirectional only ⁽²⁾	I _{FSM}	A	100
Operating junction and storage temperature range	T _J , T _{STG}	°C	-55 to +150

Notes:

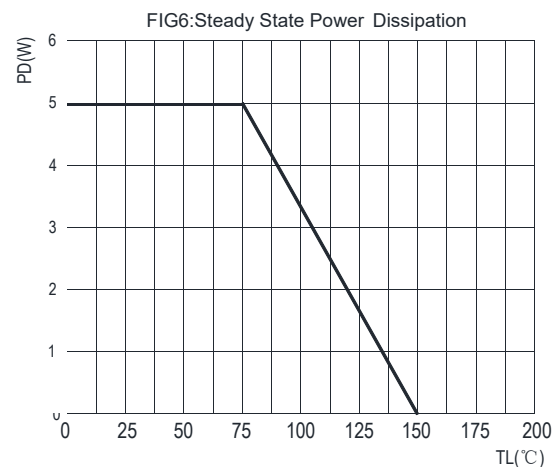
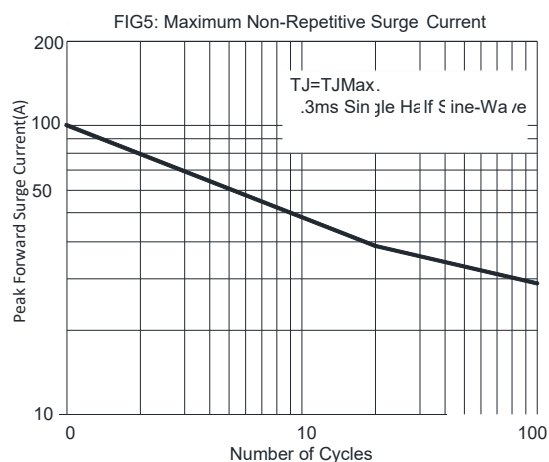
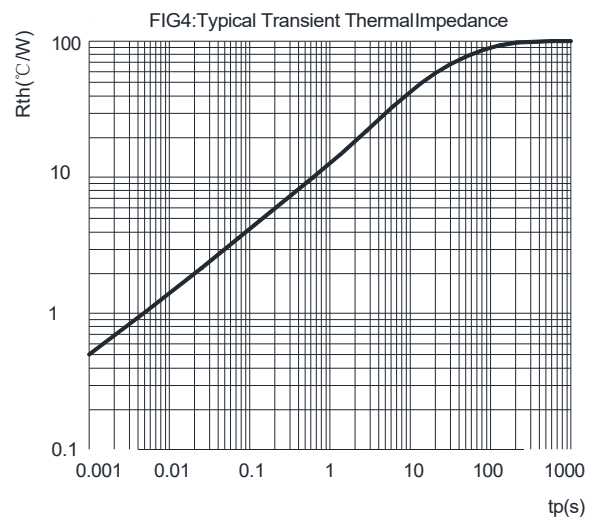
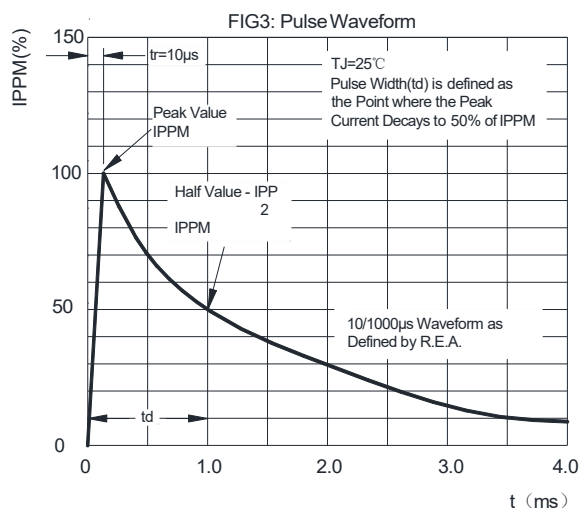
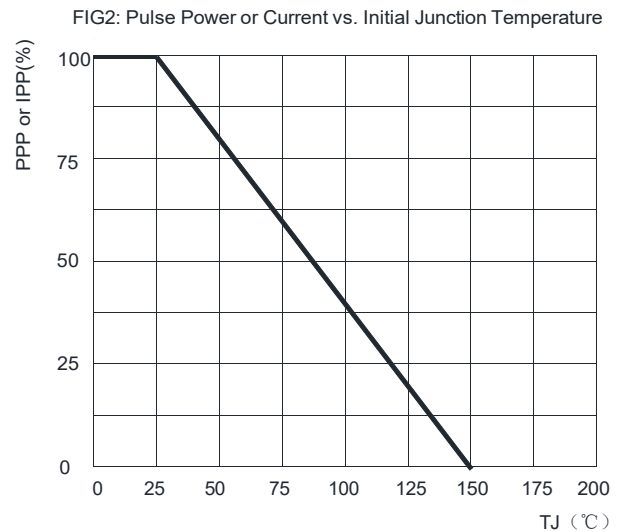
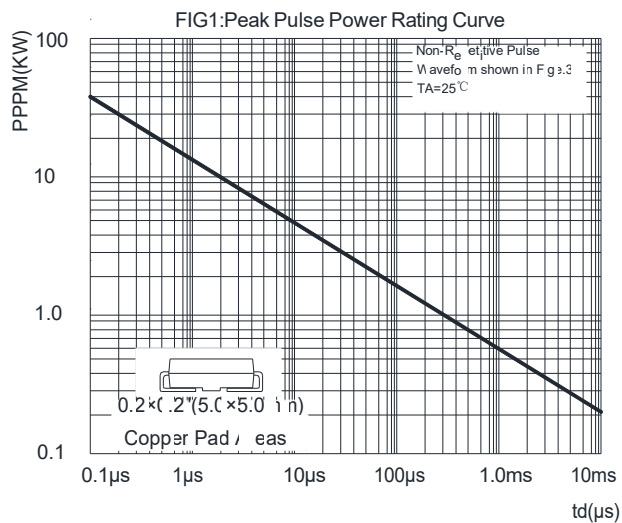
(1) Non-repetitive current pulse, per Fig. 3 and derated above T_A = 25°C

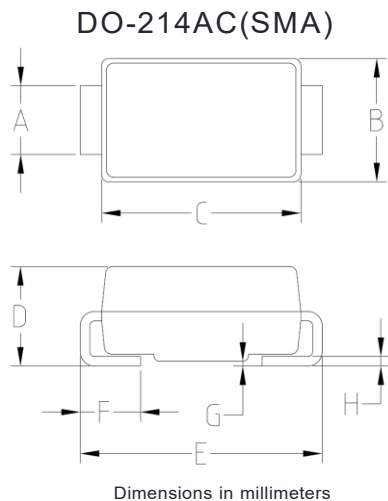
(2) Mounted on 0.2 x 0.2" (5.0 x 5.0 mm) copper pads to each terminal

■Electrical Characteristics (Ta=25°C Unless otherwise specified)

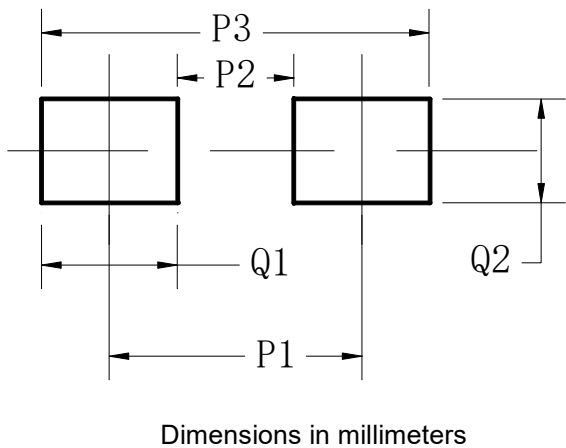
Part Number (Uni)	Breakdown Voltage V _{BR} @I _T			Maximum Reverse Leakage I _R ⁽⁶⁾ @ V _{RWM} (μ A)	Working Peak Reverse Voltage V _{RWM} (V)	Maximum Reverse Surge Current I _{PP} ⁽⁵⁾ (A)	Maximum Clamping Voltage V _c @ I _{PP} (V)
	Min(V)	Max (V)	I _T ⁽⁴⁾ (mA)				
SMA06J05V	6.4	7.1	10	800	5.0	65.22	9.2

■ Characteristics (Typical)



■ Outline Dimensions

DO-214AC(SMA)		
Dim	Min	Max
A	1.25	1.58
B	2.40	2.83
C	4.06	4.75
D	1.90	2.30
E	4.93	5.28
F	0.76	1.41
G	0.00	0.20
H	0.15	0.31

■ Suggested Pad Layout

DO-214AC(SMA)	
Dim	Millimeters
P1	4.00
P2	1.50
P3	6.50
Q1	2.50
Q2	1.70