

Surface Mount Rectifier



Features:

- Plastic Package
- For Surface Mounted Applications
- Low Profile Package
- Built-In Strain Relief, Ideal for Automated Placement
- High Temperature Soldering : 250°C/10 seconds at Terminals

Mechanical Data

- Case : JEDEC DO-214AC molded plastic over passivated chip
- Terminals : Solder plated, solderable per MIL-STD-750, method 2026
- Polarity : Colour band denotes cathode end
- Weight : 0.002oz, 0.064g

Maximum Ratings and Thermal Characteristics

Ratings at 25°C ambient temperature unless otherwise specified

Characteristic	Symbol	S2GA-13-F	S2JA-13-F	S2MA-13-F	Units
Maximum repetitive peak reverse voltage	V_{RRM}	400	600	1,000	V
Maximum RMS voltage	V_{RWS}	280	420	700	V
Maximum DC blocking voltage	V_{DC}	400	600	1,000	V
Maximum average forward rectified current at $T_L=90^{\circ}\text{C}$	$I_{F(AV)}$	2			A
Peak forward surge current at $T_L = 110^{\circ}\text{C}$ 8.3 ms single half-sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	50			A
Maximum instantaneous forward voltage at 2A	V_F	1.15			V
Maximum DC reverse current $T_A=25^{\circ}\text{C}$ at rated DC blocking voltage $T_A=125^{\circ}\text{C}$	I_R	5 125			μA
Typical junction capacitance (Note 1)	C_J	20			pF
Typical thermal resistance (Note 2)	$R_{\theta JA}$	50			$^{\circ}\text{C/W}$
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150			$^{\circ}\text{C}$

Note:

(1) Measured at 1MHz and applied reverse voltage of 4V

(2) Thermal resistance from junction to ambient and junction to lead PCB mounted on 0.27" × 0.27" (7 × 7mm²) copper pad areas

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FIG.1 – FORWARD DERATING CURVE

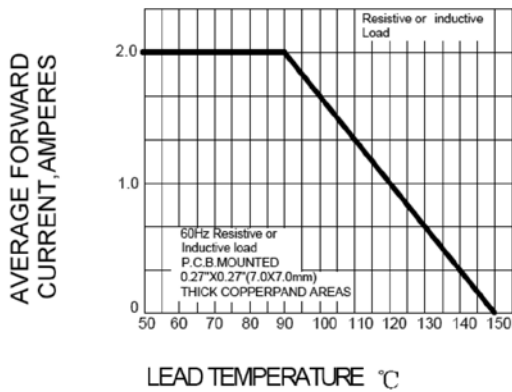


FIG.2 PEAK FORWARD SURGE CURRENT

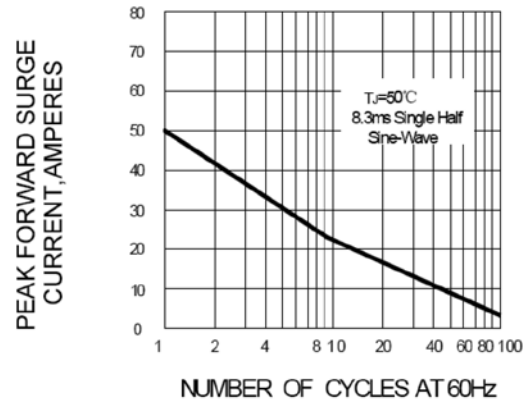


FIG.3 – TYPICAL FORWARD CHARACTERISTICS

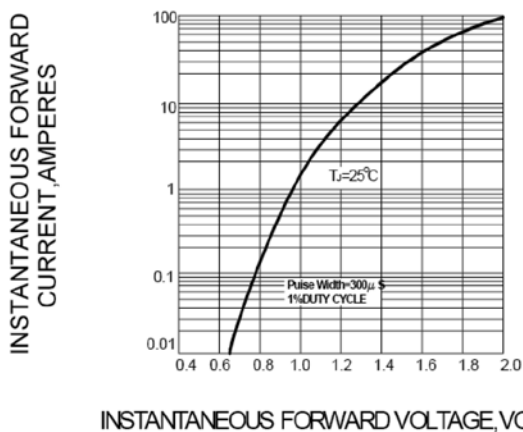


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

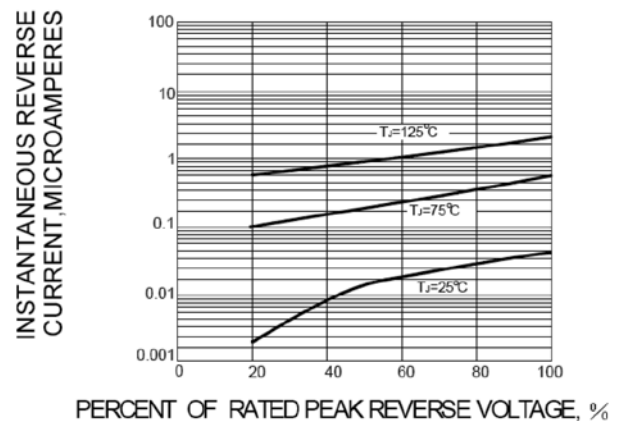
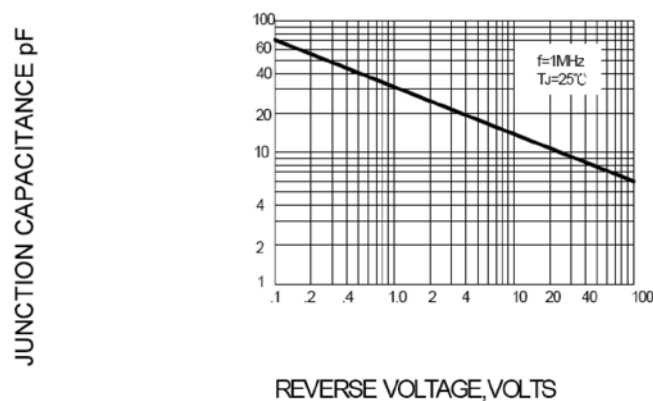


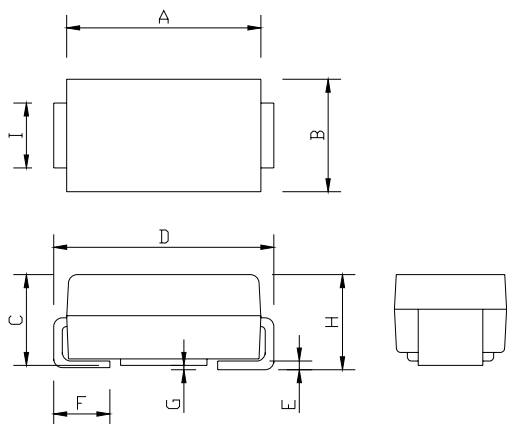
FIG.5-TYPICAL JUNCTION CAPACITANCE



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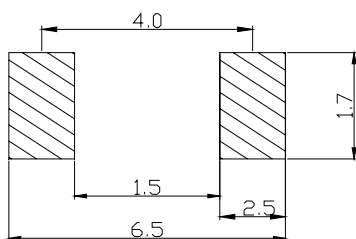
Package Outline Dimensions



DO-214AC(SMA)		
Dim.	Min.	Max.
A	4.25	4.65
B	2.4	2.8
C	1.85	2.15
D	4.85	5.35
E	0.2 Typ.	
F	0.9	1.5
G	0.2 Max.	
H	1.9	2.3
I	1.35	1.65

Dimensions : Millimetres

Soldering Footprint



Dimensions : Millimetres

Package Information

Device	Package	Shipping
S2GA-13-F S2JA-13-F S2MA-13-F	DO-214AC(SMA)	5,000 / Tape & Reel

Part Number Table

Description	Part Number
Surface Mount Rectifier	S2GA-13-F
	S2JA-13-F
	S2MA-13-F

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