

1.5A SURFACE MOUNT GLASS PASSIVATED RECTIFIER

Features

- Glass Passivated Die Construction
- Low Forward Voltage Drop and High Current Capability
- Surge Overload Rating to 50A Peak
- Ideally Suited for Automated Assembly

Mechanical Data

Case: Molded Plastic

Case Material - UL Flammability Rating Classification 94V-0

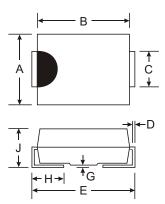
Terminals: Solder Plated Terminal -Solderable per MIL-STD-202, Method 208

Polarity: Cathode Band or Cathode Notch

Approx. Weight: SMA 0.064 grams SMB 0.093 grams

Marking: Type Number, See Page 2

Ordering Information: See Page 2



Dim	SI	ЛΑ	SMB			
	Min	Max	Min	Max		
Α	2.29	2.92	3.30	3.94		
В	4.00	4.60	4.06	4.57		
С	1.27	1.63	1.96	2.21		
D	0.15	0.31	0.15	0.31		
Е	4.80	5.59	5.00	5.59		
G	0.10	0.20	0.10	0.20		
Н	0.76	1.52	0.76	1.52		
J	2.01	2.62	2.00	2.62		
All Dimensions in mm						

A Suffix Designates SMA Package No Suffix Designates SMB Package

Maximum Ratings and Electrical Characteristics @TA = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	S2 A/AA	S2 B/BA	S2 D/DA	S2 G/GA	S2 J/JA	S2 K/KA	S2 M/MA	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	50	100	200	400	600	800	1000	٧
RMS Reverse Voltage	V _{R(RMS)}	35	70	140	280	420	560	700	V
Average Rectified Output Current @ T _T = 100°C	I _(AV)	1.5						Α	
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	50					Α		
Forward Voltage @ I _F = 1.5A	V _{FM}	1.15				V			
Peak Reverse Current		5.0 125			μΑ				
Typical Total Capacitance (Note 1)	Ст	20					pF		
Typical Thermal Resistance, Junction to Terminal (Note 2)		20					°C/W		
Operating and Storage Temperature Range		-65 to +150					°C		

Notes:

- 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.
- 2. Thermal Resistance Junction to Terminal, unit mounted on PC board with 5.0 mm² (0.013 mm thick) copper pads as heat sink.



Ordering Information (Note 3)

Device*	Packaging	Shipping
S2xA-13	SMA	5000/Tape & Reel
S2x-13	SMB	3000/Tape & Reel

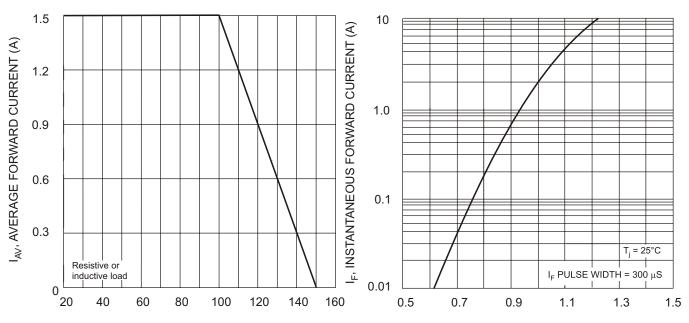
3. For Packaging Details, go to our website at http://www.diodes.com/datasheets/ap02007.pdf. * x = Device type, e.g. S2AA-13 (SMA package); S2A-13 (SMB package).

Marking Information



XXX = Product type marking code, ex: S2A (SMB package) XXXX = Product type marking code, ex: S2AA (SMA package)) :: = Manufacturers' code marking YWW = Date code marking Y = Last digit of year ex: 2 for 2002

WW = Week code 01 to 52

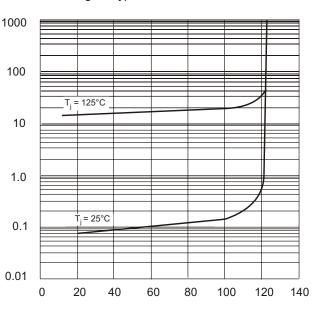


T_T, TERMINAL TEMPERATURE (°C) Fig. 1 Forward Current Derating Curve

60 I_{FSM}, PEAK FORWARD SURGE CURRENT (A) Single Half-Sine-Wave INSTANTANEOUS REVERSE CURRENT (µA) JEDEC Method 50 40 30 20 10 0 100 10 1

NUMBER OF CYCLES AT 60 Hz Fig. 3 Forward Surge Current Derating Curve

V_F, INSTANTANEOUS FORWARD VOLTAGE (V) Fig. 2 Typical Forward Characteristics



PERCENT OF RATED PEAK REVERSE VOLTAGE (%) Fig. 4 Typical Reverse Characteristics

DS16004 Rev. 8 - 2 2 of 2 S2A/A - S2M/A