

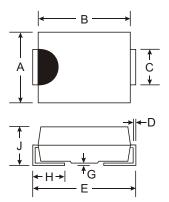
1.0A SURFACE MOUNT GLASS PASSIVATED RECTIFIER

Features

- Glass Passivated Die Construction
- Low Forward Voltage Drop and High Current Capability
- Surge Overload Rating to 30A Peak
- Ideally Suited for Automated Assembly

Mechanical Data

- · Case: Molded Plastic
- Case Material UL Flammability Rating Classification 94V-0
- Moisture sensitivity: Level 1 per J-STD-020A
- Terminals: Solder Plated Terminal -Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band or Cathode Notch
- SMA Weight: 0.064 grams (approx.)
- SMB Weight: 0.093 grams (approx.)
- Marking: Type Number, See Page 2
- Ordering Information: See Page 2



	SMA		SMB			
Dim	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, B, D, G, J, K, M Suffix Designates SMA Package AB, BB, DB, GB, JB, KB, MB Suffix Designates SMB Package

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

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

Characteristic	Sym	ool S1 A/A		S1 B/BB	S1 D/DB	S1 G/GB	S1 J/JB	S1 K/KB	S1 M/MB	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RF} V _{RV} V _F	м 50	1	100	200	400	600	800	1000	V
RMS Reverse Voltage	V _{R(R}	иs) 35	-	70	140	280	420	560	700	V
Average Rectified Output Current @ T _T = 1	00°C I _O					1.0		•	•	Α
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated (JEDEC Method)	oad I _{FS}	и				30				А
Forward Voltage @ I _F =	1.0A V _{FI}	И				1.1				V
Peak Reverse Leakage Current @ T _A = 1 at Rated DC Blocking Voltage @ T _A = 1		1				5.0 100				μА
Typical Total Capacitance (Note 1)			10					pF		
Typical Thermal Resistance, Junction to Terminal (Note 2)		Т	30						°C/W	
Operating and Storage Temperature Range		TG	-65 to +150						°C	

Notes:

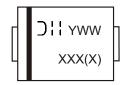
- 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
- $2. \ Thermal\ Resistance\ Junction\ to\ Terminal,\ unit\ mounted\ on\ PC\ board\ with\ 5.0\ mm^2\ (0.013\ mm\ thick)\ copper\ pads\ as\ heat\ sink.$

Ordering Information (Note 3)

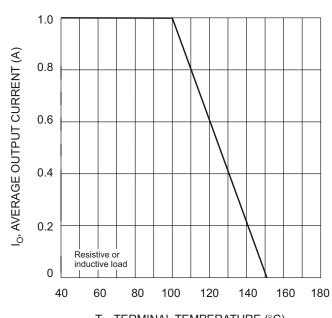
Device*	Packaging	Shipping
S1x-7	SMA	5000/Tape & Reel
S1xB-7	SMB	3000/Tape & Reel

Notes: 3. For Packaging Details, go to our website at http://www.diodes.com/datasheets/ap02007.pdf. * x = Device type, e.g. S1A-7 (SMA package); S1AB-7 (SMB package).

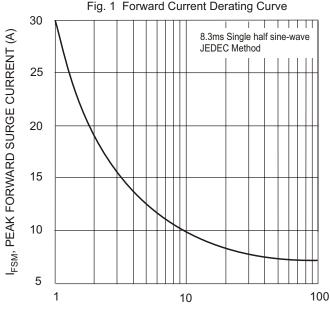
Marking Information



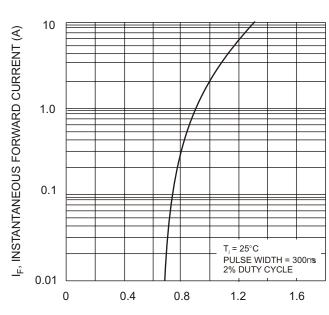
XXX = Product type marking code, ex: S1A (SMA package)
XXXX = Product type marking code, ex: S1AB (SMB package)
1; = Manufacturers' code marking
YWW = Date code marking
Y = Last digit of year ex: 2 for 2002
WW = Week code 01 to 52



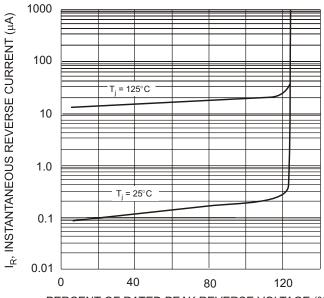
T_T, TERMINAL TEMPERATURE (°C) Fig. 1 Forward Current Derating Curve



NUMBER OF CYCLES @ 60Hz Fig. 3 Typical Forward Characteristics



 V_{F} , INSTANTANEOUS FORWARD VOLTAGE (V) Fig. 2 Typical Forward Characteristics



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