Technical Data
Data Sheet N2029, Rev. -

RoHS

S1W-HF General Purpose Rectifier

SMA

Features

- Glass passivated die construction
- High surge current capability
- Cases: Molded plastic
- This is a Halogen Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Circuit Diagram

Applications

- Rectifier

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

Characteristic	Symbol	S1W-HF	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	1600	V
Maximum RMS voltage	V_{RMS}	1120	V
Average Rectified Output Current 60HZ Half-sine wave, Resistance load, T_L =130℃	I_O	1	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	35	A
Forward Voltage @ I_F = 1.0 A	V_F	1.1	V
Peak Reverse Current @T_A = 25°C At Rated DC Blocking Voltage @T_A = 125°C	I_{RM}	5 200	μA
Typical Junction Capacitance(Note1)	C_J	14	pF
Typical Thermal Resistance Junction to Lead (Note 2)	$R_{\theta JL}$	22	°C/W
Typical Thermal Resistance Junction to Ambient (Note 2)	$R_{\theta JA}$	95	°C/W
Operating and Storage Temperature Range	T_J,T_{STG}	-55 to +150	°C

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas.

Ratings and Characteristics Curves

FIG.1: FORWARD CURRENT DERATING CURVE

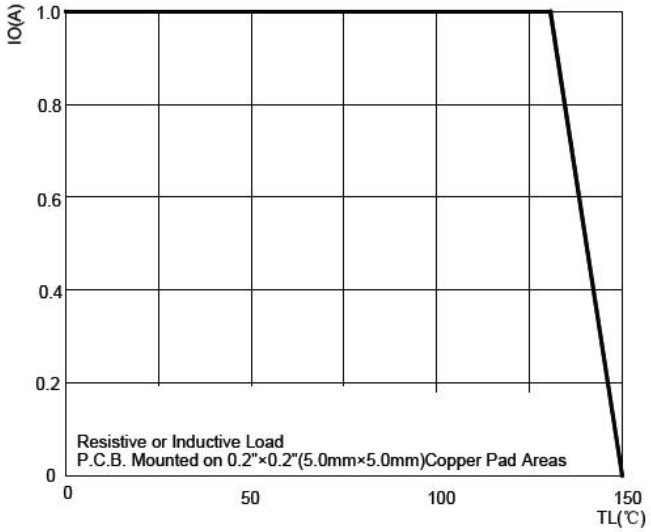


FIG.2: MAXIMUM NON-REPETITIVE FORWARD URGE CURRENT

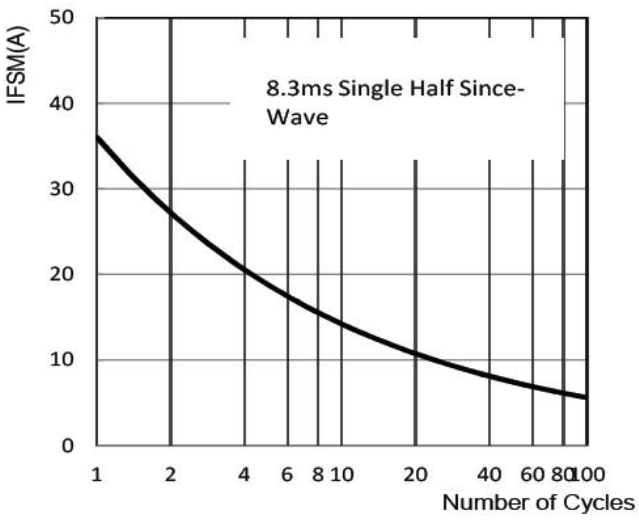


FIG.3: TYPICAL FORWARD CHARACTERISTICS

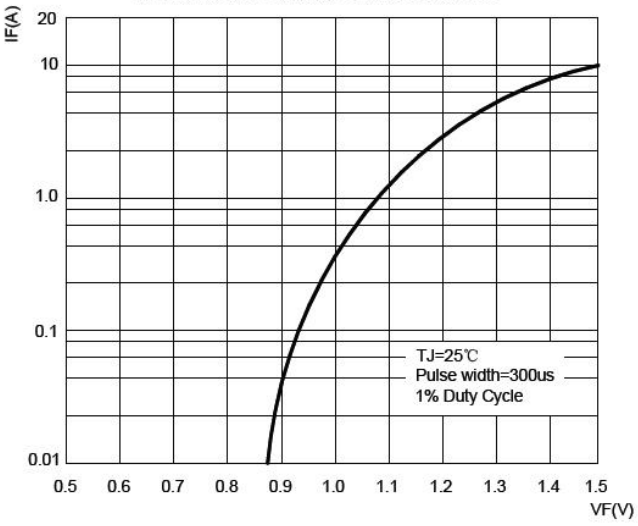
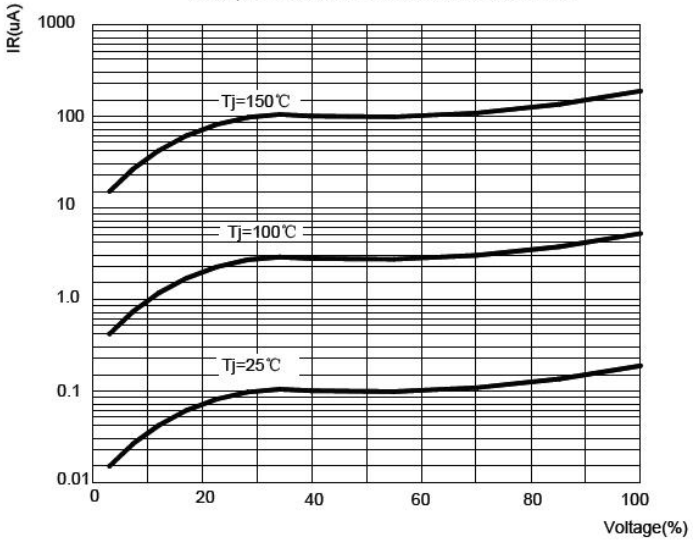


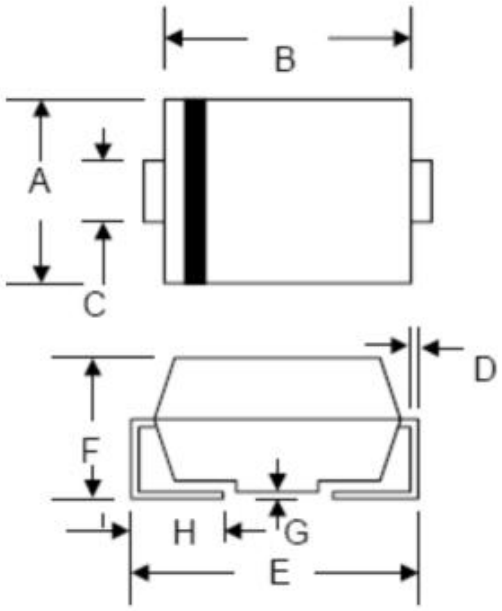
FIG.4：TYPICAL REVERSE CHARACTERISTICS



Technical Data
Data Sheet N2029, Rev. -

RoHS

Mechanical Dimensions SMA



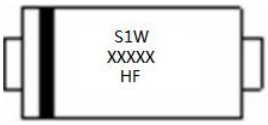
SYMBOL	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	2.40	2.84	0.094	0.112
B	3.99	4.75	0.157	0.187
C	1.05	1.70	0.041	0.067
D	0.15	0.51	0.006	0.020
E	4.80	5.66	0.189	0.223
F	1.90	2.95	0.075	0.116
G	0.05	0.203	0.002	0.008
H	0.76	1.52	0.030	0.600

Ordering Information

Device	Package	Shipping
S1W-HF	SMA	5000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

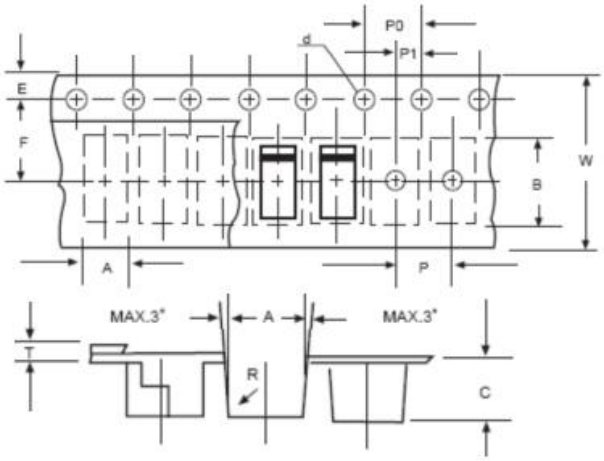
Marking Diagram



Where XXXXX is YYWWL

S	= Device Type
1	= Forward Current (1A)
W	= Reverse Voltage (1600V)
HF	= Halogen Free
YY	= Year
WW	= Week
L	= Lot Number

Carrier Tape Specification SMA



SYMBOL	Millimeters	
	Min.	Max.
A	2.97	3.17
B	5.70	5.90
C	2.32	2.52
d	1.40	1.60
E	1.40	1.60
F	5.60	5.70
P	3.90	4.10
P0	3.90	4.10
P1	1.90	2.10
T	0.25	0.35
W	11.80	12.20

Technical Data
Data Sheet N2029, Rev. -

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