Innovative Service Around the Globe YAGEO

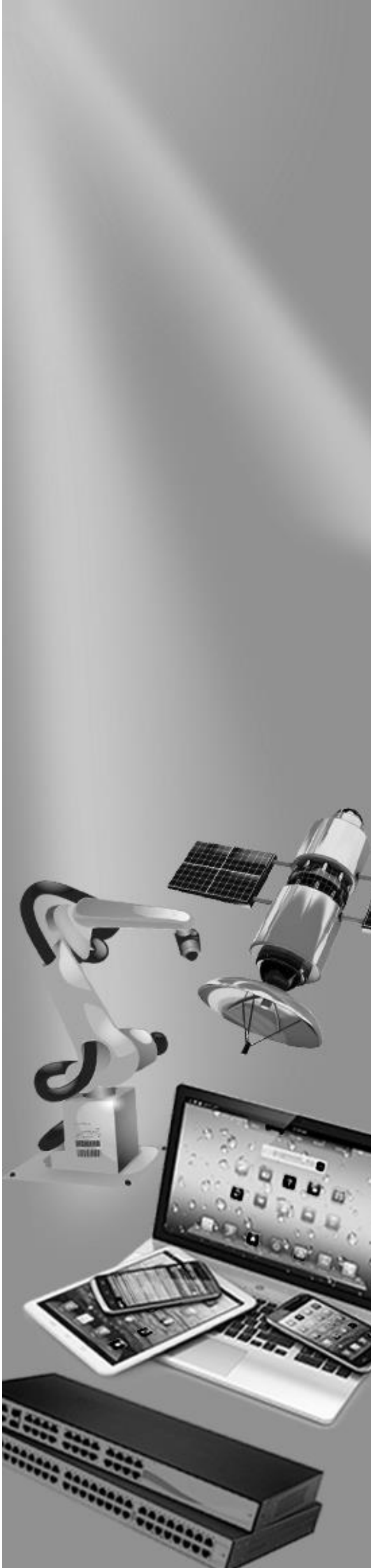
DATA SHEET

GENERAL SERIES RECTIFIER
GENERAL PURPOSE

S2 SERIES

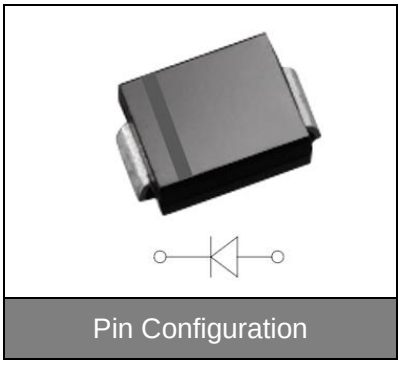
RoHS compliant & Halogen free

Product specification– December 13, 2023 V.0



General Series Rectifier

Features


Pin Configuration

- Low profile package
- Ideal for automated placement
- Glass passivated chip junction
- High forward surge capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

Applications

For use in general purpose rectification of power supplies, inverters, converters, and freewheeling diodes for consumer and telecommunication.

Mechanical Data

- Package: DO-214AA (SMB) Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Polarity: Cathode line denotes the cathode end

Maximum Ratings (Ta=25℃ Unless otherwise specified）

PARAMETER	SYMBOLS	S2A	S2B	S2D	S2G	S2J	S2K	S2M	UNITS
Marking Code	/	S2A	S2B	S2D	S2G	S2J	S2K	S2M	/
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Average rectified output current @60Hz sine wave, resistance load, TL (Fig.1)	IO	2.0							A
Average rectified output current @60Hz sine wave, resistance load, TL (Fig.1)	I_{FSM}	50							A
Current squared time @1ms≤t≤8.3ms Ta=25℃	I^2t	10.4							A^2S
Typical Thermal Resistance	$R_{\theta J-A}$(1)	53							°C/W
Storage temperature	Tstg	-55 ~ +150							℃
Junction temperature	T_j	-55 ~ +150							℃

Note: (1) 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

Electrical Characteristics（Ta=25℃ Unless otherwise specified）

PARAMETER	SYMBOLS	TEST CONDITIONS	S2A	S2B	S2D	S2G	S2J	S2K	S2M	UNITS
Maximum instantaneous forward voltage	VF	I_{FM}=2.0A	1.15							V
Maximum DC reverse current at rated DC blocking voltage	IR	@T_a=25℃	5.0							uA
	IR	@T_a =125℃	125							

Typical Characteristics Curves

Figure 1. Io-TL Curve

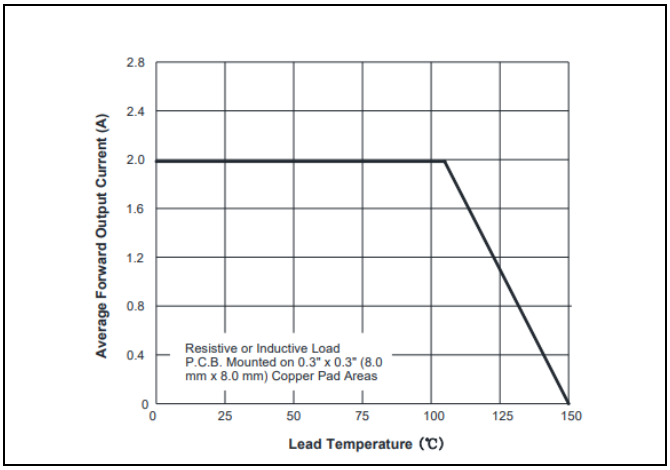


Figure 2. Forward Surge Current Capability

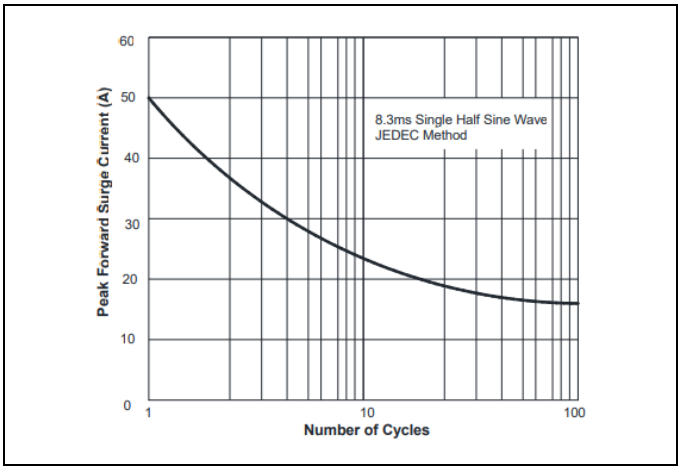


Figure 3. Typical Forward Voltage

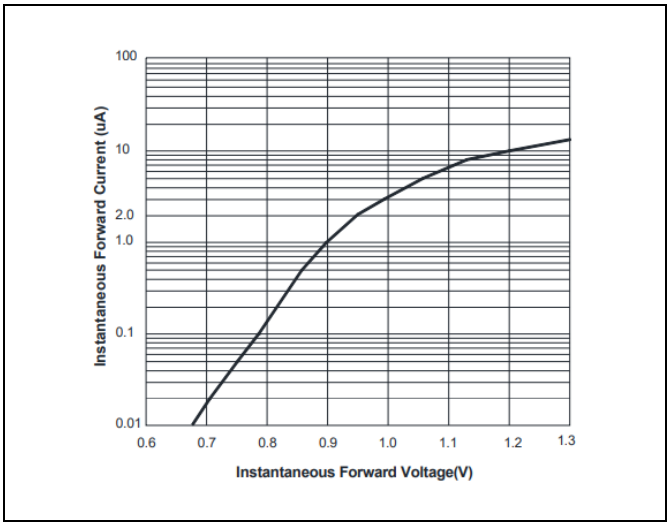
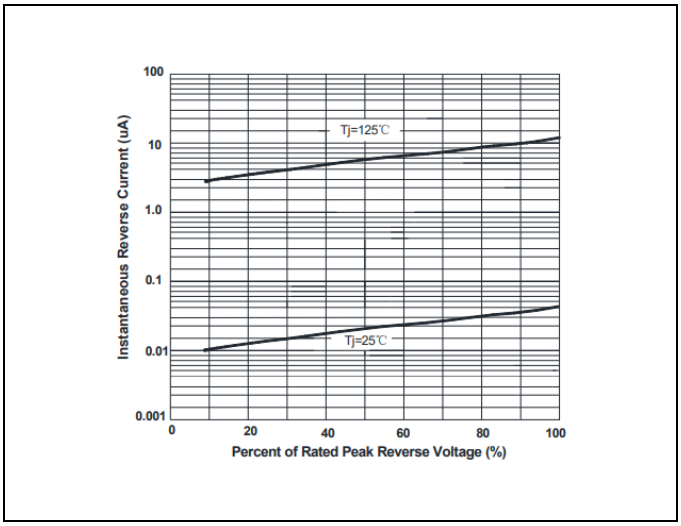
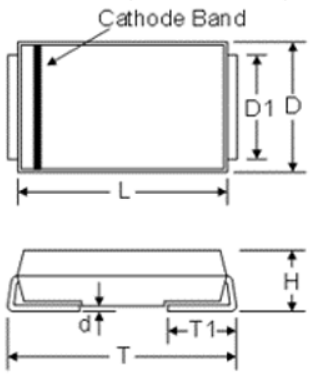


Figure 4. Typical Reverse Characteristics

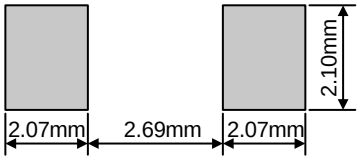


Dimensions (SMB/DO-214AA)

Product:



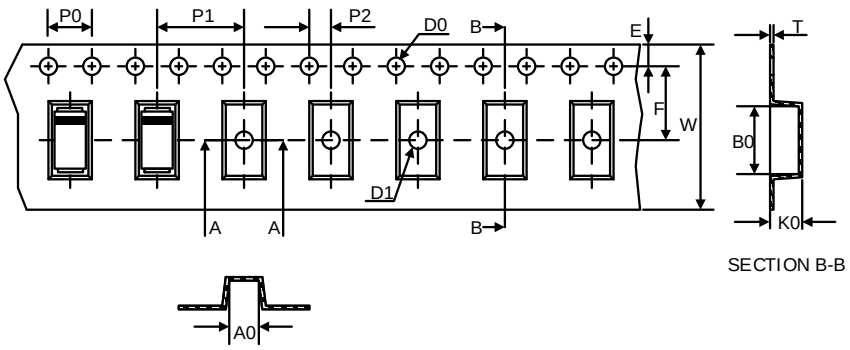
Pad:



Symbol	Millimeters		Inches	
	Min.	Max.	Min.	Max.
L	4.05	4.75	0.160	0.187
D	3.30	3.94	0.130	0.155
D1	1.85	2.20	0.073	0.087
T	5.10	5.60	0.201	0.221
T1	0.76	1.52	0.030	0.060
d	0.05	0.20	0.002	0.008
H	1.99	2.65	0.078	0.104

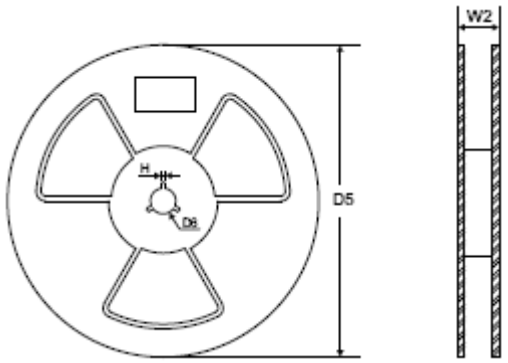
Packaging

Tape



Symbol	Dimension (mm)
W	12.0±0.15
P0	4.00±0.10
P1	8.00±0.10
P2	2.00±0.10
D0	Φ1.55±0.05
D1	Φ1.55±0.05
E	1.75±0.05
F	5.50±0.10
A0	3.65±0.10
B0	5.60±0.10
K0	2.57±0.10
T	0.22±0.05

13” Reel



D5	Φ330±1.0
D6	Φ17+1/-0.5
H	3.0max.
W2	16.0±0.5
Quantity: 3000pcs	

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