PANJIT SEMI CONDUCTOR

US1AWG SERIES

SURFACE MOUNT ULTRAFAST RECTIFIER

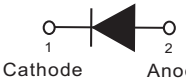
VOLTAGE 50 to 1000 Volt **CURRENT** 1 Ampere

FEATURES

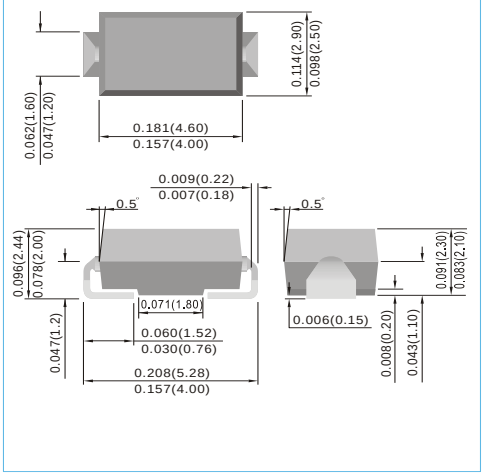
- For surface mounted applications in order to optimize board space
- Easy pick and place
- Ultrafast recovery times for high efficiency
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Glass passivated junction
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

MECHANICAL DATA

- Case : SMA(W) molded plastic
- Terminals : Solder plated, solderable per MIL-STD-750,Method 2026
- Polarity : Color band denotes cathode end
- Standard packaging : 12mm tape (EIA-481)
- Weight : 0.0023 ounce, 0.0679 gram



SMA(W) Unit : inch(mm)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

PARAMETER	SYMBOL	US1AWG	US1BWG	US1DWG	US1GWG	US1JWG	US1KWG	US1MWG	UNITS
Maximum Recurrent 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
Maximum Average Forward Current	$I_{F(AV)}$	1							A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	30							A
Maximum Forward Voltage at 1A	V_F	1			1.3	1.7			V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	10							μA
Typical Junction Capacitance	C_J	17							pF
Typical Thermal Resistance (Note 1) (Note 2)	$R_{\theta JA}$ $R_{\theta JL}$	150 35							°C / W
Maximum Reverse Recovery Time (Note 3)	T_{RR}	50				100			ns
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150							°C

NOTES:1. Mounted on an FR4 PCB, single-sided copper, mini pad.
2. Mounted on an FR4 PCB, single-sided copper, with 76.2 x 114.3mm copper pad area.
3. Reverse Recovery Test Conditions: I_F=0.5A, I_R=1A, Recover to 0.25A.

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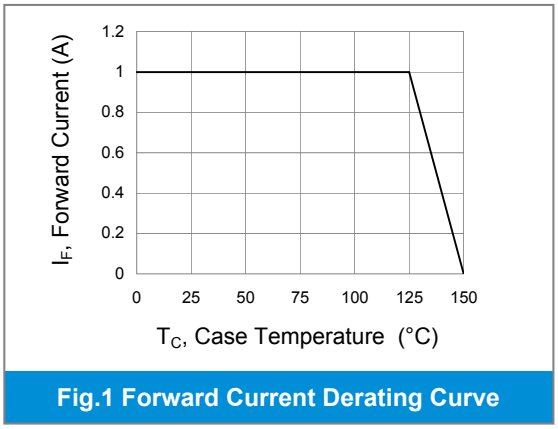

Fig.1 Forward Current Derating Curve

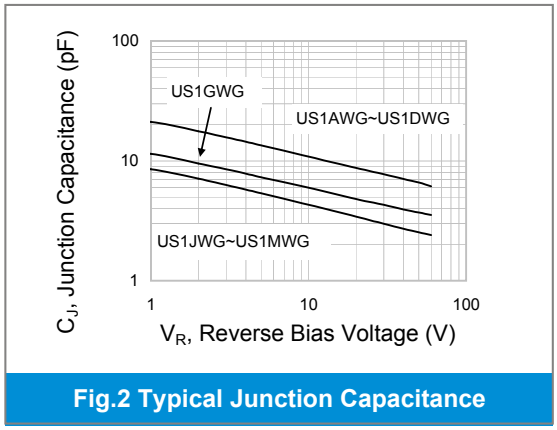

Fig.2 Typical Junction Capacitance

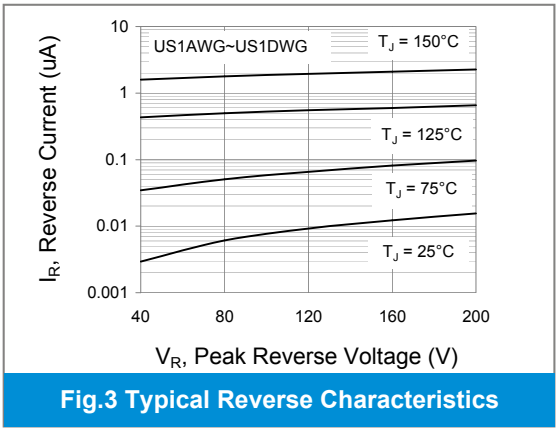

Fig.3 Typical Reverse Characteristics

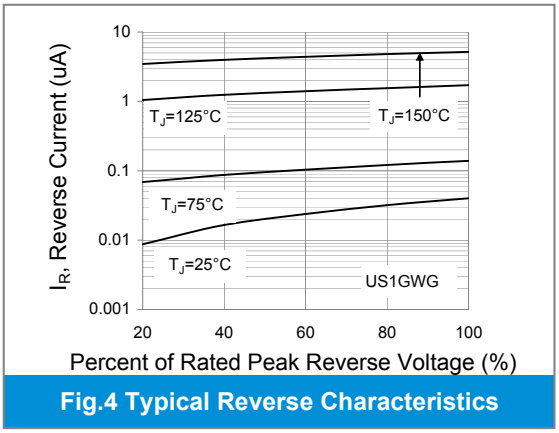

Fig.4 Typical Reverse Characteristics

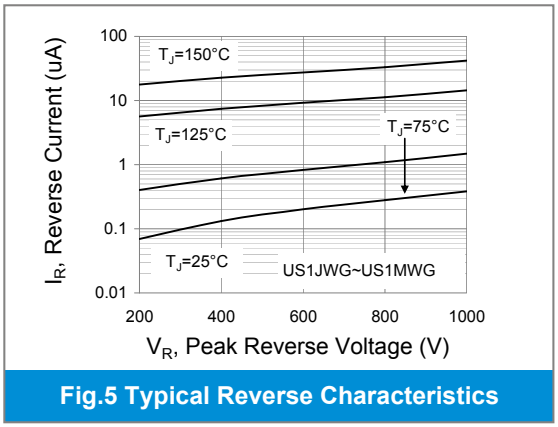

Fig.5 Typical Reverse Characteristics

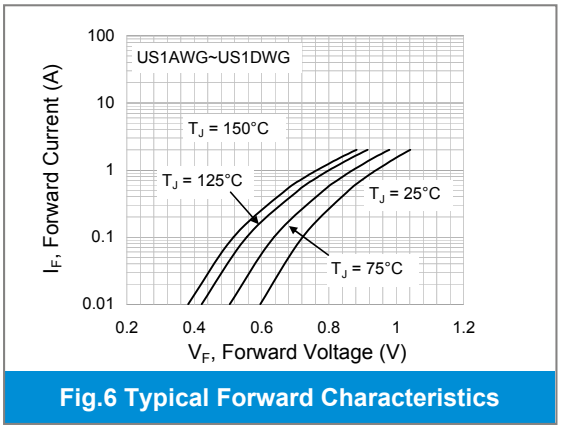

Fig.6 Typical Forward Characteristics

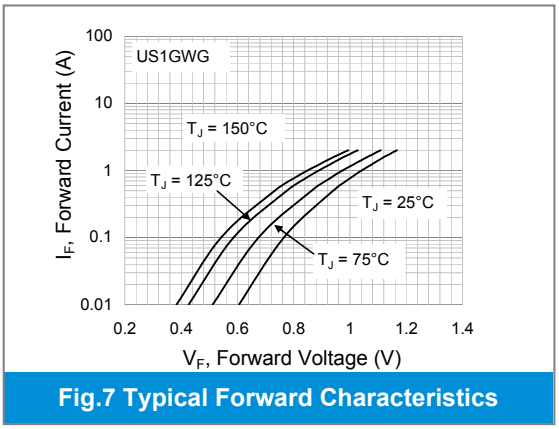

Fig.7 Typical Forward Characteristics

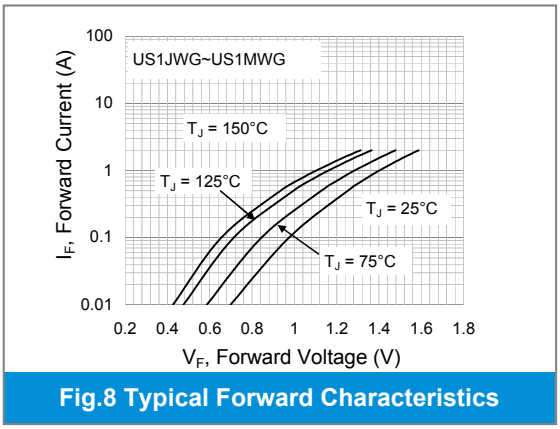

Fig.8 Typical Forward Characteristics

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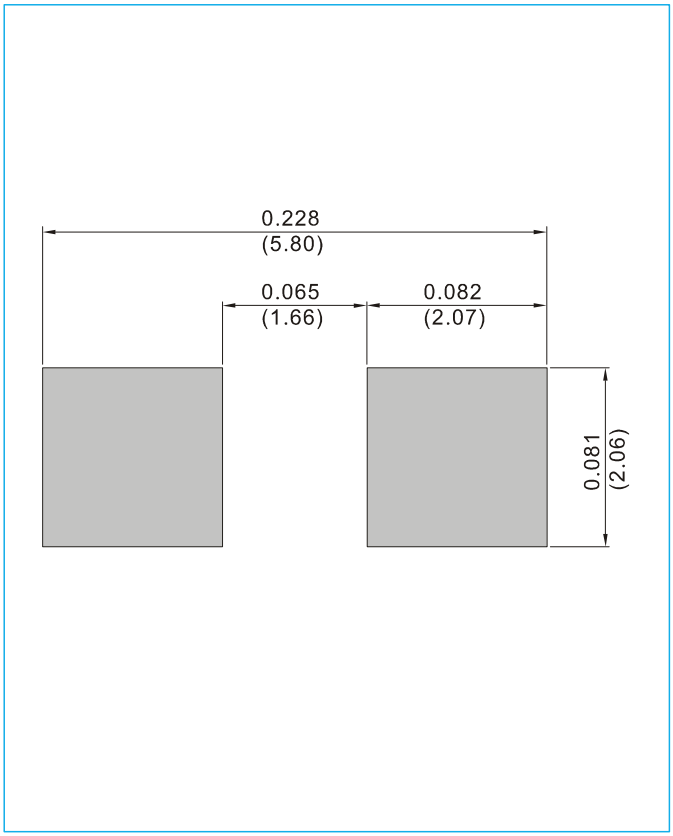
MOUNTING PAD LAYOUT

SMA(W) Unit：inch(mm)



ORDER INFORMATION

- Packing information

  T/R - 7.5K per 13" plastic Reel

  T/R - 1.8K per 7" plastic Reel

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Part No_packing code_Version

US1AWG_R1_00001

US1AWG_R2_00001

For example :

RB500V-40_R2_00001

Packing Code XX				Version Code XXXXX		
Packing type	1st Code	Packing size code	2nd Code	HF or RoHS	1st Code	2nd~5th Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			

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