HFZT

US1AW-US1MW

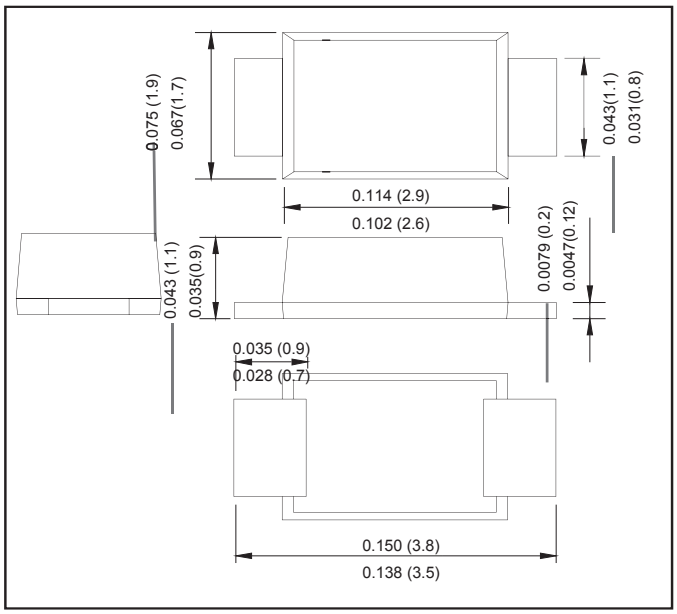
SOD-123FL SCHOTTKY BARRIER RECTIFIER

FEATURES

- For surface mounted applications
- Ultra fast switching for high efficiency
- Low reverse leakage
- Built-in strain relief,ideal for automated placement
- High forward surge current capability
- High temperature soldering guaranteed 250 C/10 seconds at terminals

MECHANICAL DATA

- Case style: plastic molded
- Lead:Plated axial leads, solderable per MIL-STD-750, method 2026
- Polarity:Color band denotes cathode end
- Mounting Position:Any



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)Single phase,half wave,60 Hz,resistive or inductive load.
For capacitive load,derate by 20%.

Parameter	Symbols	US1AW	US1BW	US1DW	US1GW	US1JG	US1KW	US1MW	Units
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
Maximum Average Forward Rectified Current at Ta = 65 ℃	$I_{F(AV)}$	1							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	25							A
Maximum Instantaneous Forward Voltage at 1A	V_F	1.0			1.4	1.7			V
Maximum DC Reverse Current Ta = 25℃ Rated DC Blocking Voltage Ta =125℃	I_R	5 100							μA
Maximum Reverse Recovery Time 1)	trr	50				75			ns
Typical Thermal Resistance	$R_{\theta JA}$	180							℃/W
Operating and Storage Temperature Range	Tj, Tstg	-55 ~ +150							°C

1) Measured with IF = 0.5 A, IR = 1 A, Irr = 0.25 A

RATINGS AND CHARACTERISTIC CURVES

Fig.1 Forward Current Derating Curve

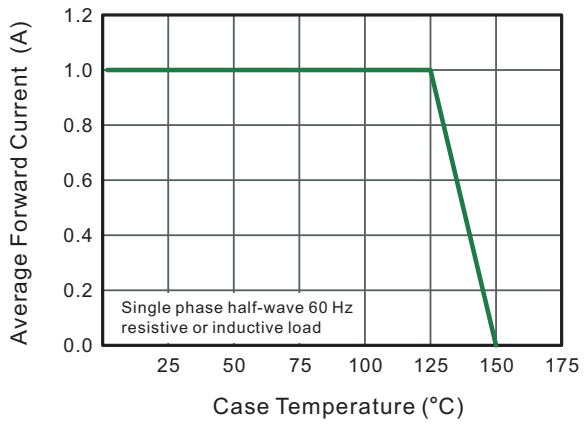


Fig.2 Typical Reverse Characteristics

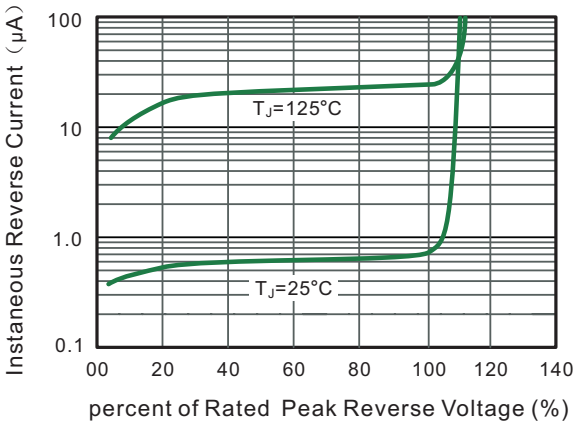


Fig.3 Typical Forward Characteristics

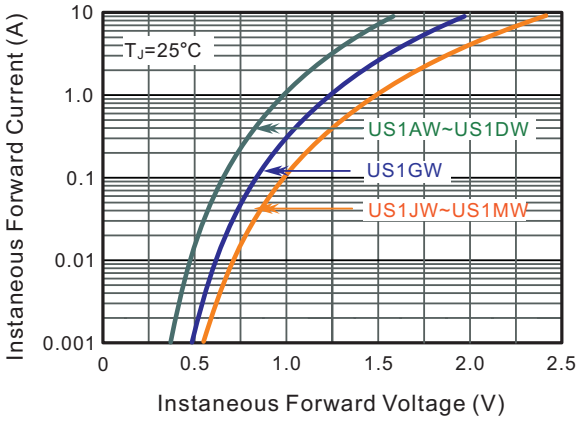


Fig.4 Maximum Non-Repetitive Peak Forward Surage Current

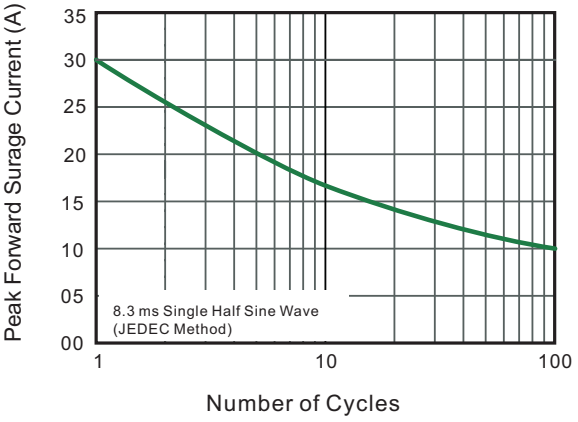


Fig.5- Typical Transient Thermal Impedance

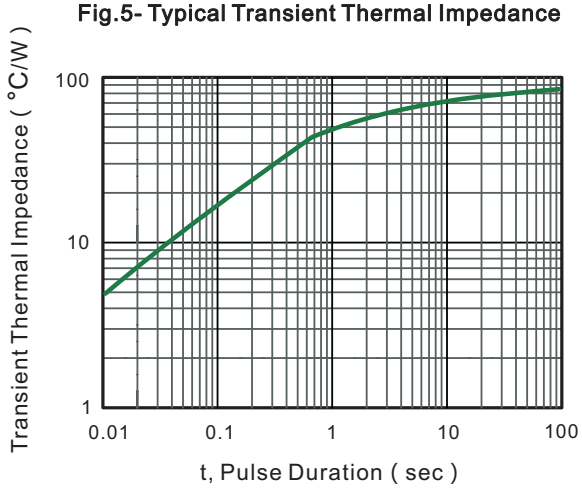


Fig.6 Typical Junction Capacitance