

Surface Mount Schottky Barrier Rectifier

Reverse Voltage - 20 to 200 V
Forward Current - 2.0A

PINNING

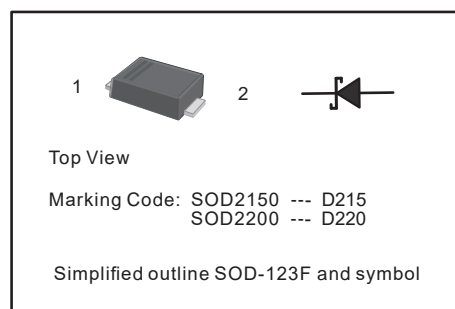
PIN	DESCRIPTION
1	Cathode
2	Anode

Features

- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

Mechanical Data

- Case: SOD-123F
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 15mg 0.00048oz



Absolute Maximum Ratings and Electrical characteristics

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

Parameter	Symbol	SOD2150	SOD2200	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	150	200	V
Maximum RMS voltage	V_{RMS}	105	140	V
Maximum DC Blocking Voltage	V_{DC}	150	200	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	2.0		A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	40		A
Max Instantaneous Forward Voltage at 2 A	V_F	0.95		V
Maximum DC Reverse Current $T_a = 25^{\circ}C$ at Rated DC Reverse Voltage $T_a = 100^{\circ}C$	I_R	0.3 3		mA
Typical Junction Capacitance ⁽¹⁾	C_j	80		pF
Typical Thermal Resistance ⁽²⁾	$R_{\theta JA}$	85		$^{\circ}C/W$
Operating Junction Temperature Range	T_j	-55 ~ +150		$^{\circ}C$
Storage Temperature Range	T_{stg}	-55 ~ +150		$^{\circ}C$

(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C

(2) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

Fig.1 Forward Current Derating Curve

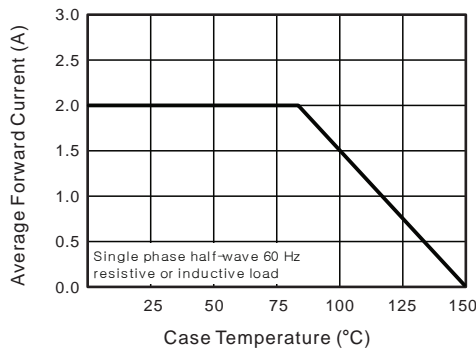


Fig.2 Typical Reverse Characteristics

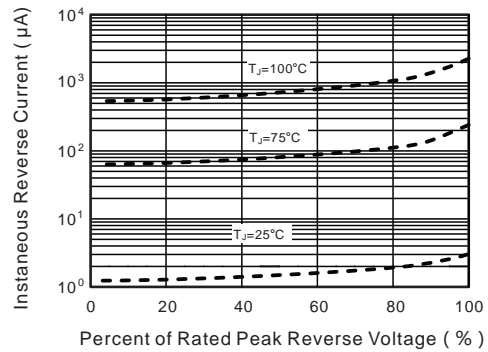


Fig.3 Typical Forward Characteristic

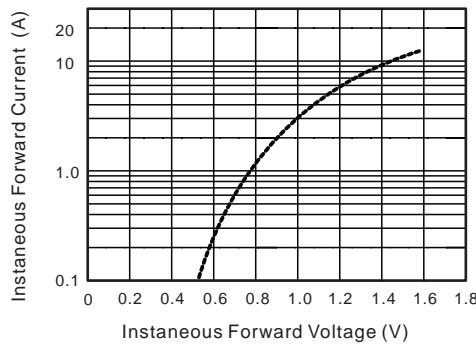


Fig.4 Typical Junction Capacitance

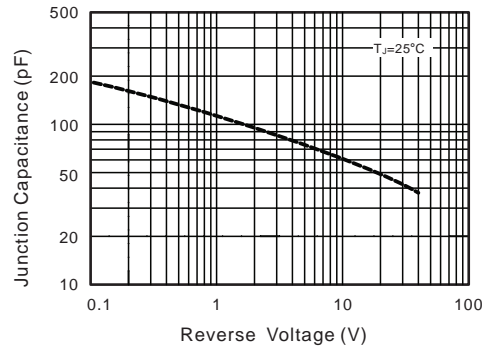


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

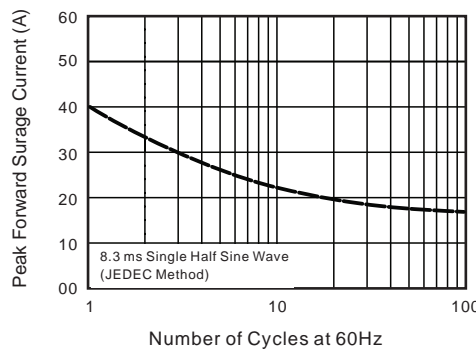
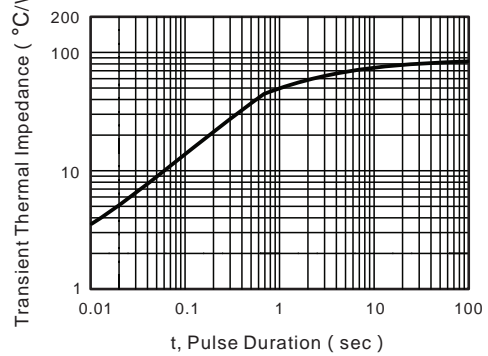


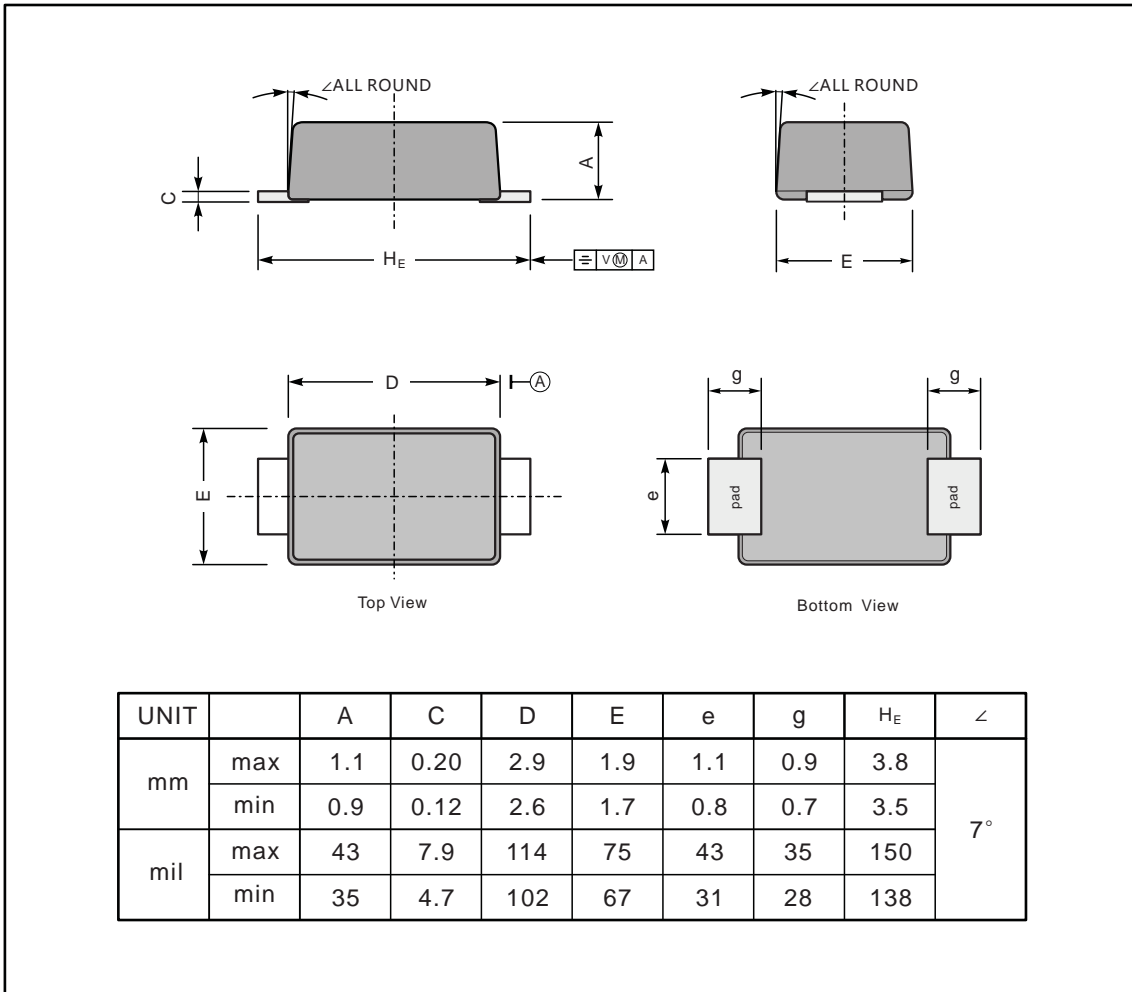
Fig.6 Typical Transient Thermal Impedance



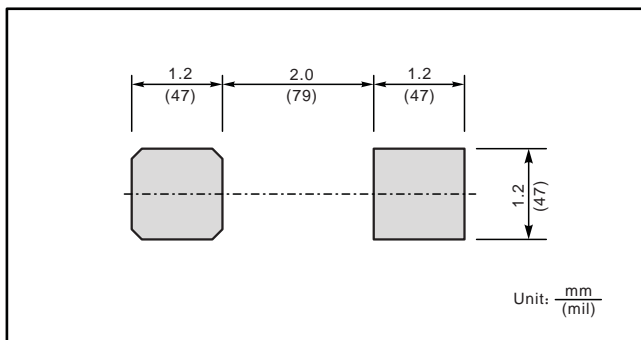
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123F



The recommended mounting pad size



Marking

Type number	Marking code
SOD2150	D215
SOD2200	D220