

SR280 THRU SR2200
Schottky Barrier Diodes

Revision: A

General Description

This Schottky diode is for use in low voltage, high frequency rectifier of switching mode power supplier, DC/DC converters and polarity protection application.

- Very small conduction losses
- Low Forward Voltage Drop
- High forward surge capacity

Features

- Case: DO-15, molded epoxy body
- Terminal: Matte tin plated leads
- Polarity: See mark on body

Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	SR280	SR2100	SR2150	SR2200	Units
Maximum repetitive peak reverse voltage	V_{RRM}	80	100	150	200	V
Maximum RMS voltage	V_{RMS}	56	70	105	140	V
Maximum DC blocking voltage	V_{DC}	80	100	150	200	V
Maximum average forward rectifier current	$I_{F(AV)}$	2.0				A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	50				A
Operating Junction Temperature Range	T_J, T_{STG}	-50 to 125				$^\circ\text{C}$

Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Condition	Symbol	SR280-SR2200	Units
Maximum instantaneous forward voltage	$I_F=2A$	V_F	0.85	V
Maximum DC reverse current at blocking voltage	$T_C=25^\circ\text{C}$	I_R	0.5	mA
	$T_C=100^\circ\text{C}$		20	
Typical Junction Capacitance	4.0V, 1.0MHz	C_J	180	pF

Note

1. Pulse test: 300 μs pulse width, 1% duty cycle

Thermal Characteristic ($T_A=25^\circ\text{C}$ unless otherwise noted)

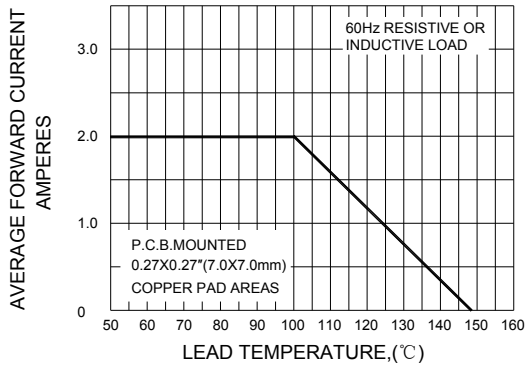
Parameter	Symbol	SR280 THRU SR2200	Units
Typical Thermal resistance	$R_{\theta JA}^{(1)}$	45	$^\circ\text{C/W}$

Note

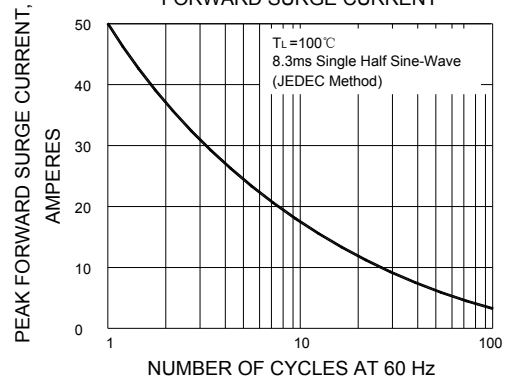
1. Thermal resistance from junction to lead vertical PCB mounted 0.375" (9.5 mm) lead length with 1.5" \times 1.5" (38 mm \times 38mm) copper pads

Ratings and Characteristics Curves ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

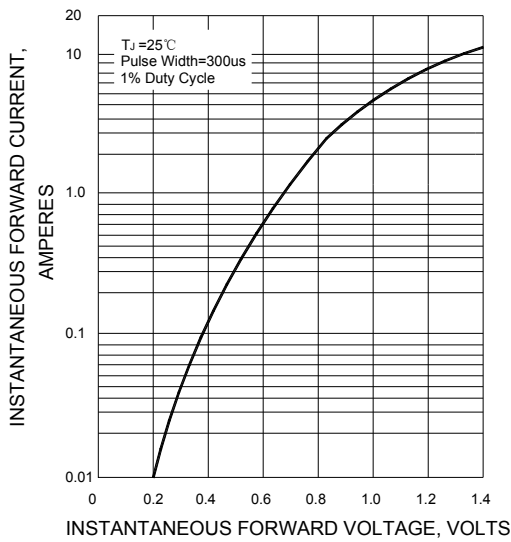
F1G.1-FORWARD CURRENT DERATING CURVE



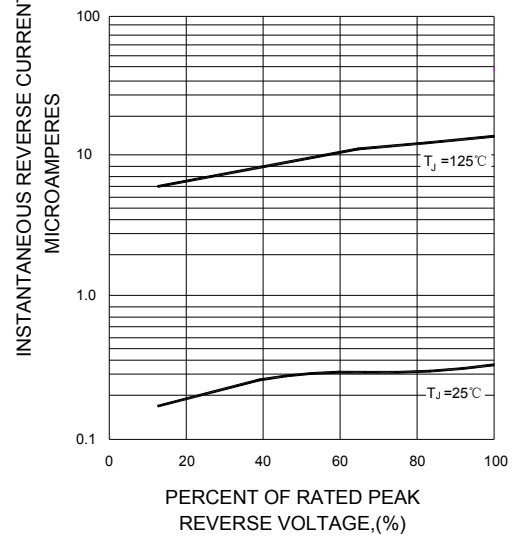
F1G.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



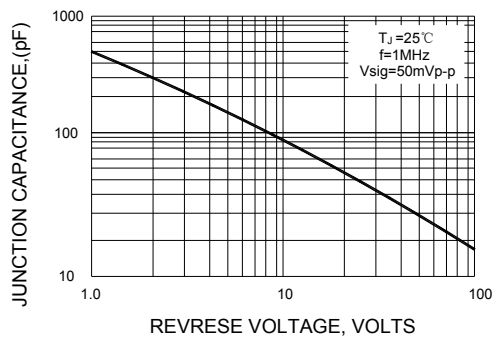
F1G.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



F1G.4-TYPICAL REVERSE CHARACTERISTICS

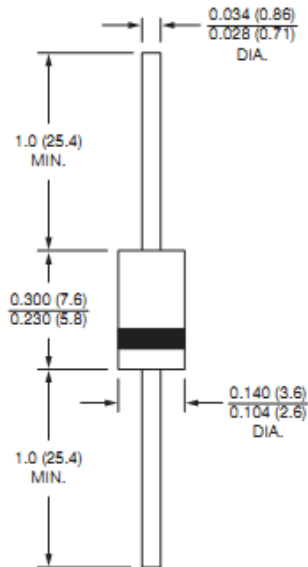


F1G.5-TYPICAL JUNCTION CAPACITANCE



Package Outline Dimensions in inches and millimeters

DO-15(DO-204AC)



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