DESCRIPTION

The CRS08 is available in SOD-123FL package Type

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
- Available in SOD-123FL package

ORDERING INFORMATION

Package Type	Part Number
SOD-123FL	CRS08
Note	SPQ: 3,000pcs/Reel
AiT provides all RoHS Compliant Products	

MECHANICAL DATA

Case: SOD-123FL

Terminals: Solderable per MIL-STD-750, Method 2026

Approx. Weight:15mg 0.00048oz

PIN DESCRIPTION

ABSOLUTE MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Parameter		Symbol	CRS08	Unit
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	30	V
Maximum RMS voltage		V_{RMS}	21	V
Maximum DC Blocking Voltage		V_{DC}	30	V
Maximum Average Forward Rectified Current		$I_{F(AV)}$	1.5	A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)		I_{FSM}	50	A
Max Instantaneous Forward Voltage at 1.5A		V_F	0.55	V
Maximum DC Reverse Current at Rated DC Reverse Voltage	T_A = 25°C T_A =100°C	I_R	0.5 5	mA
Typical Junction Capacitance NOTE1		C_j	220	pF
Typical Thermal Resistance NOTE2		$R_{\theta JA}$	80	°C/W
Operating Junction Temperature Range		T_J	-55-+125	°C
Storage Temperature Range		T_{STG}	-55-+150	°C

NOTE1: Measured at 1MHz and applied reverse voltage of 4 V D.C.

NOTE2: P.C.B. mounted with 0.2 X 0.2" (5 X 5 mm) copper pad areas.

TYPICAL CHARACTERISTICS

Figure 1. Forward Current Derating Curve

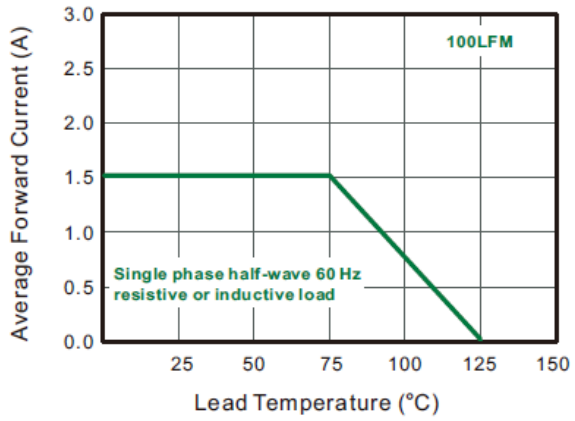


Figure 2. Typical Reverse Characteristics

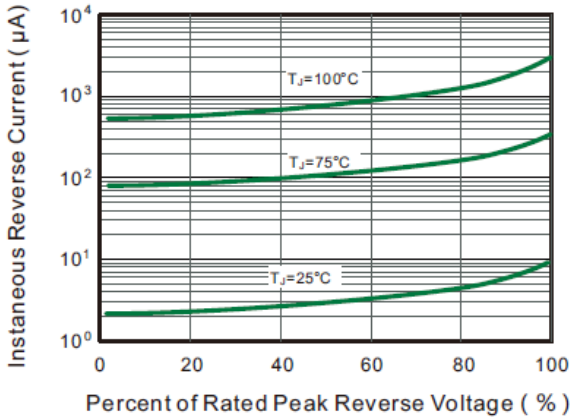


Figure 3. Typical Forward Characteristic

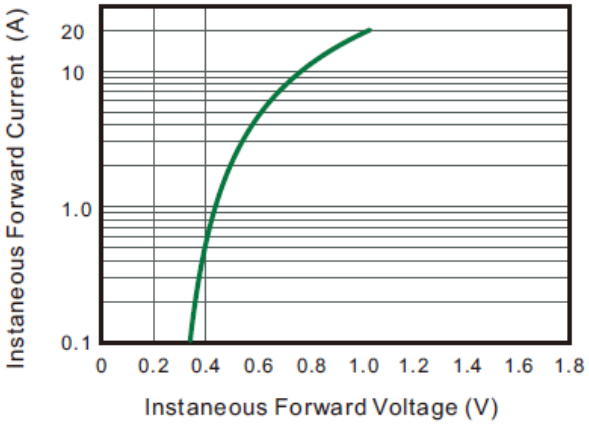


Figure 4. Typical Junction Capacitance

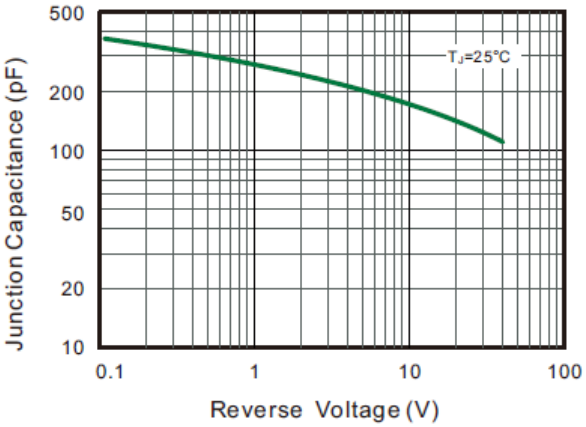


Figure 5. Maximum Non-Repetitive Peak Forward Surage Current

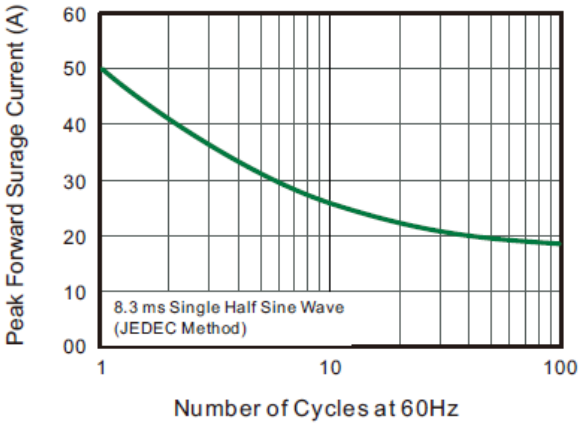
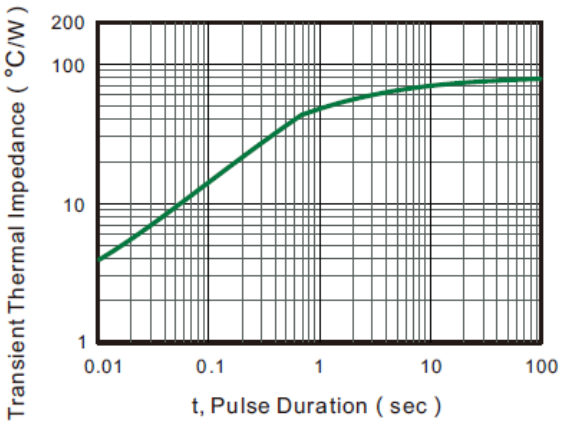


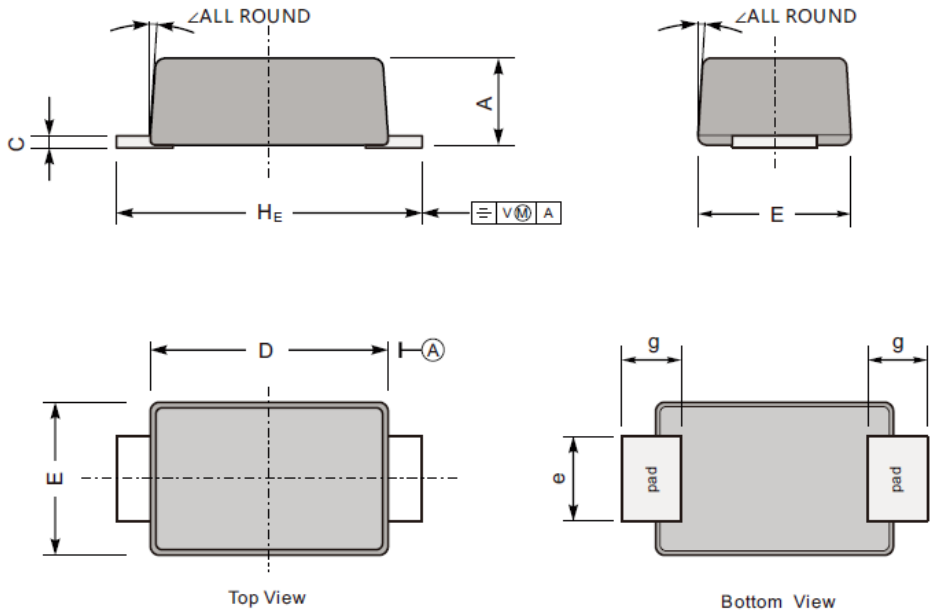
Figure 6. Typical Transient Thermal Impedance



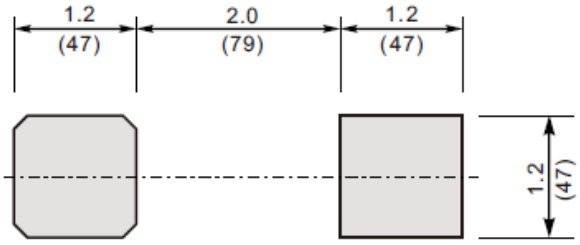
PACKAGE INFORMATION

Dimension in SOD-123FL (Unit: mm)

Plastic surface mounted package; 2 leads



The recommended mounting pad size



Unit: mm (mil)

UNIT		A	C	D	E	e	g	H_E	∠
mm	Max	1.1	0.20	2.9	1.9	1.1	0.9	3.8	7°
	min	0.9	0.12	2.6	1.7	0.8	0.7	3.5	
mil	max	43	7.9	114	75	43	35	150	
	min	35	4.7	102	67	31	28	138	

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