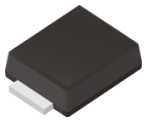
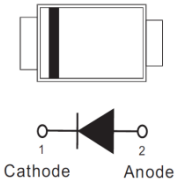
SR56F-AU

SURFACE MOUNT SCHOTTKY DIODES

Voltage	60 V	Current	5 A

SMBF





Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications in order to optimize
- Low profile package
- Low power loss,high efficiency
- High surge capacity
- Easy pick and place package suitable for automated handling
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard
- AEC-Q101 qualified

Mechanical Data

- Case: SMBF Package
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0018 ounces, 0.05 grams

Maximum Ratings and Thermal Characteristics (T_A = 25°C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	60	V
Maximum Rms Voltage	V_{RMS}	42	V
Maximum Dc Blocking Voltage	V_{DC}	60	V
Maximum Average Forward Current	$I_{F(AV)}$	5	A
Peak Forward Surge Current : 8.3ms Single Half Sine-Wave Superimposed On Rated Load	I_{FSM}	100	A
Maximum Junction Capacitance Measured at 1 MHZ And Applied V_R = 4 V	C_J	190	pF
Typical Thermal Resistance	$R_{\theta JA}$ (1) $R_{\theta JC}$ (2) $R_{\theta JL}$ (2)	135 18 17	°C/W
Operating Junction Temperature Range	T_J	-55~150	°C
Storage Temperature Range	T_{STG}	-55~150	°C

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Electrical Characteristics (T_A = 25°C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	V_F	I_F = 1 A, T_J = 25 °C	-	0.39	-	V
		I_F = 2 A, T_J = 25 °C	-	0.46	-	
		I_F = 5 A, T_J = 25 °C	-	-	0.7	
		I_F = 1 A, T_J = 125 °C	-	0.3	-	
		I_F = 2 A, T_J = 125 °C	-	0.35	-	
		I_F = 5 A, T_J = 125 °C	-	0.57	-	
Reverse Current	I_R (2)	V_R = 48 V, T_J = 25 °C	-	13	-	uA
		V_R = 60 V, T_J = 25 °C	-	-	100	uA
		V_R = 60 V, T_J = 125 °C	-	14.5	-	mA

NOTES:

1. Mounted on a FR4 PCB, single-sided copper, mini pad.
2. Short duration pulse test used to minimize self-heating effect

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TYPICAL CHARACTERISTIC CURVES

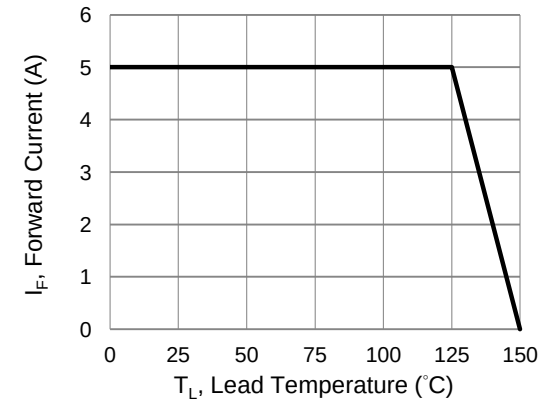

Fig.1 Forward Current Derating Curve

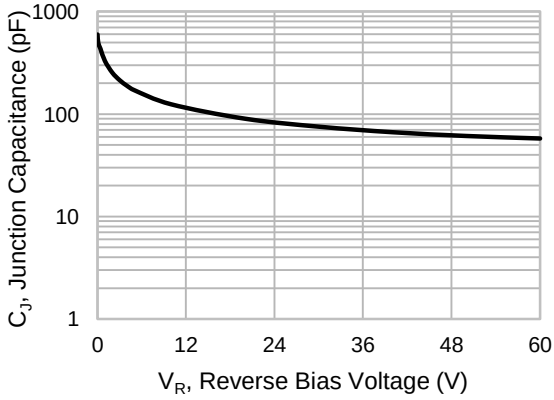

Fig.2 Typical Junction Capacitance

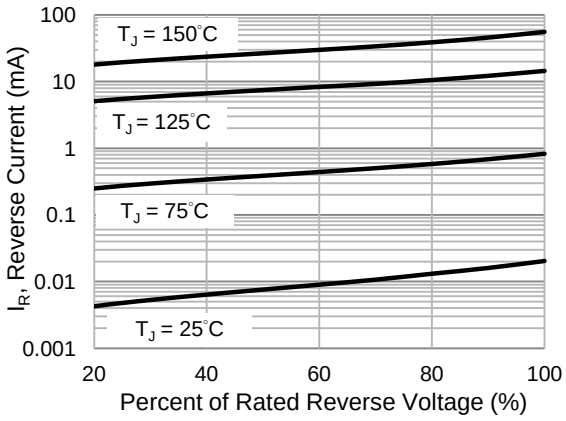

Fig.3 Typical Reverse Characteristics

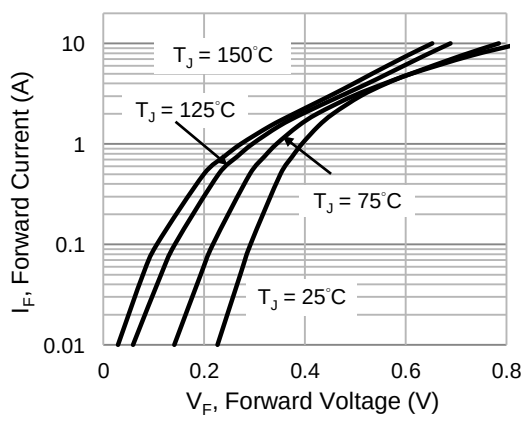

Fig.4 Typical Forward Characteristics

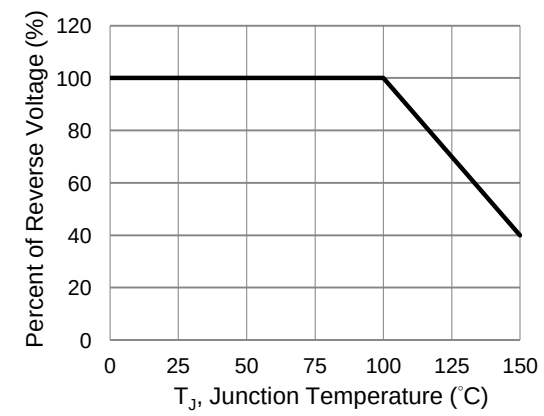

Fig.5 Operating Temperature Derating Curve

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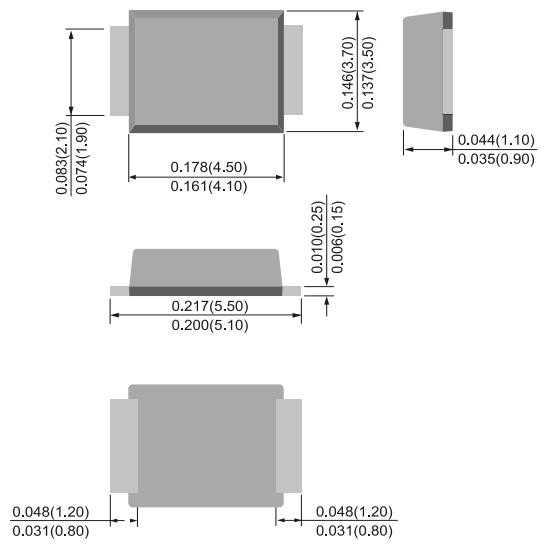
Part No Packing Code Version

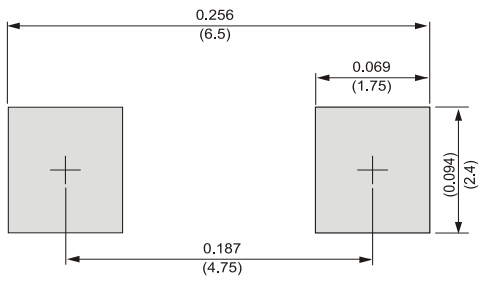
Part No Packing Code	Package Type	Packing Type	Marking	Version
SR56F-AU_R1_000A1	SMBF	5K / 13" Reel	SR56F	Halogen free

Packaging Information & Mounting Pad Layout

SMBF Dimension — Unit: inch(mm)



SMBF Pad Layout — Unit: inch(mm)



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