



SDM1045CS

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

VOLTAGE 45 Volt **CURRENT** 10 Ampere

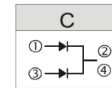
FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications in order to optimize board space
- Low power loss, High efficiency
- High surge capacity
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

MECHANICAL DATA

- Case: TO-252 molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marking
- Weight: 0.0104 ounces, 0.297 grams.

TO-252



MAXIMUM RATINGS (T_A=25°C unless otherwise noted)

PARAMETER	SYMBOL	VALUE	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	45	V
Maximum RMS Voltage	V _{RMS}	32	V
Maximum DC Blocking Voltage	V _R	45	V
Maximum Average Rectified Output Current	I _{F(AV)}	10 5	A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	80	A
Typical Thermal Resistance	R _{θJC}	8	°C/W
Operating Junction Temperature Range And Storage Temperature Range	T _J , T _{STG}	-55 to + 150	°C

NOTE : 1. Mounted on 10cm x 10cm x 0.5mm copper pad area

ELECTRICAL CHARACTERISTICS (T_A=25 C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Breakdown voltage	V _{BR}	I _R =0.5mA T _A =25°C	45	-	-	V
Instantaneous forward voltage	V _F	I _F =1A T _A =25°C	-	0.34	-	V
		I _F =3A T _A =25°C	-	0.42	-	V
		I _F =5A T _A =25°C	-	0.49	0.54	V
		I _F =1A T _A =125°C	-	0.26	-	V
Reverse current	I _R	V _R =36V	-	25	-	μA
		V _R =45V T _A =25°C	-	-	210	μA
		V _R =45V T _A =125°C	-	5	-	mA



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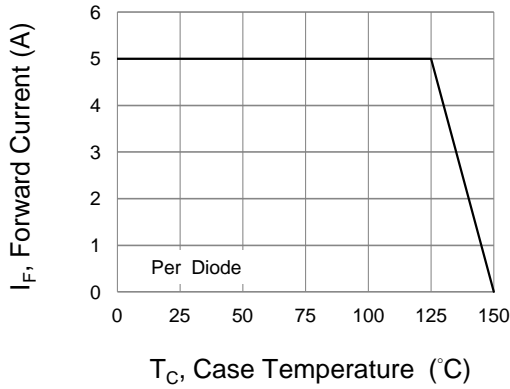


Fig.1 Forward Current Derating Curve

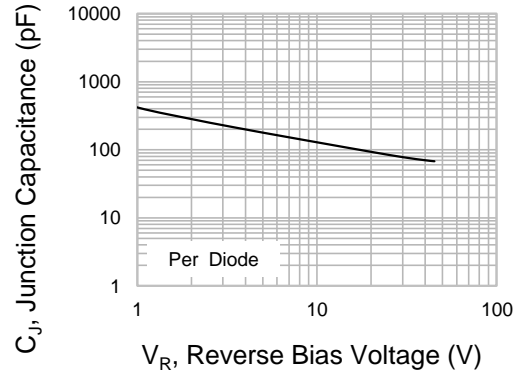


Fig.2 Typical Junction Capacitance

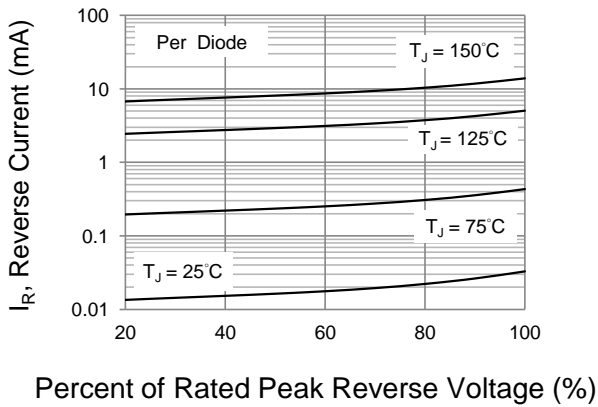


Fig.3 Typical Reverse Characteristics

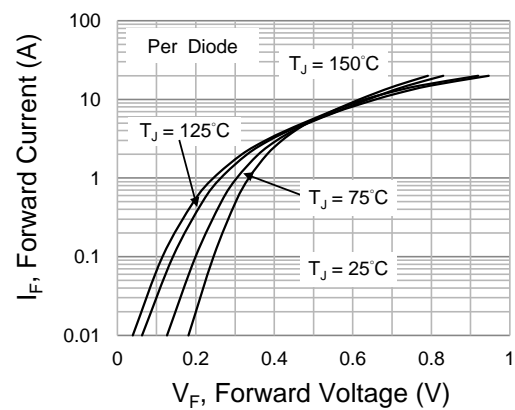


Fig.4 Typical Forward Characteristics

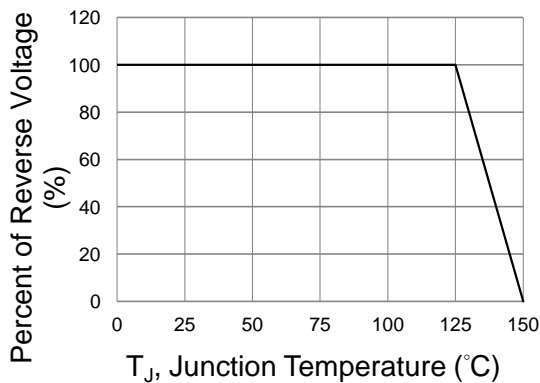


Fig.5 Operating Temperature Derating Curve

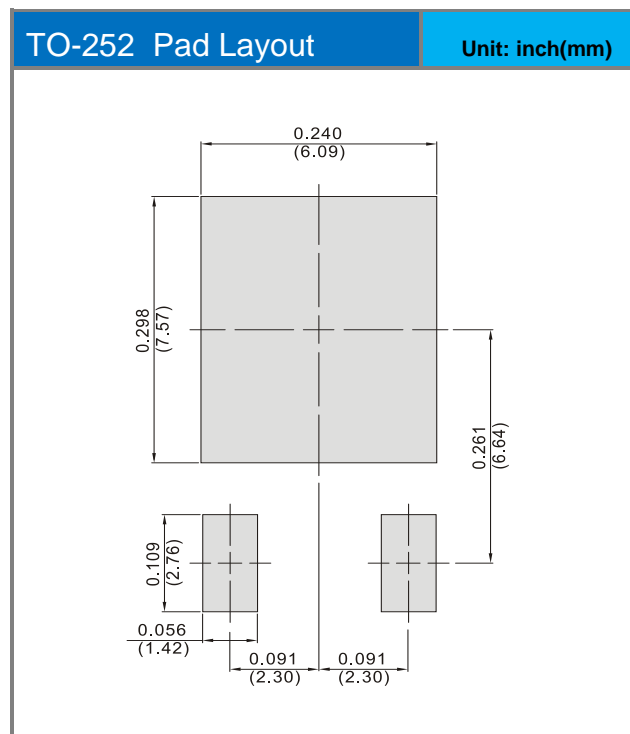


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Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version
SDM1045CS_S2_00001	TO-252	3K / 13" Reel	SDM1045CS	Halogen free

Packaging Information & Mounting Pad Layout





SDM1045CS

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