



SDM1045CS

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

VOLTAGE 45 Volt **CURRENT** 10 Ampere

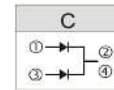
FEATURES

- 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



SDM1045CS

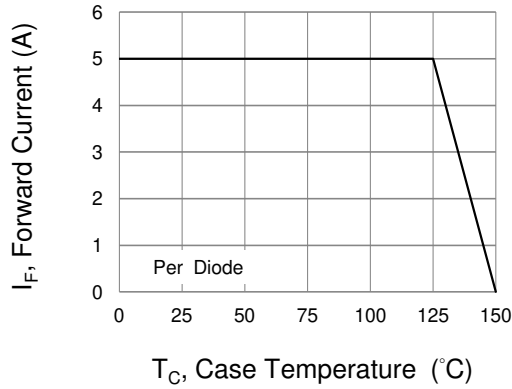


Fig.1 Forward Current Derating Curve

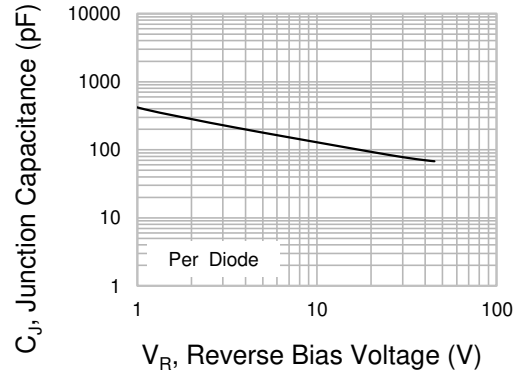


Fig.2 Typical Junction Capacitance

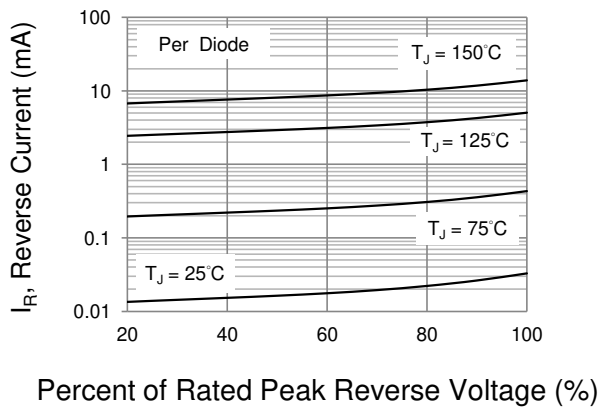


Fig.3 Typical Reverse Characteristics

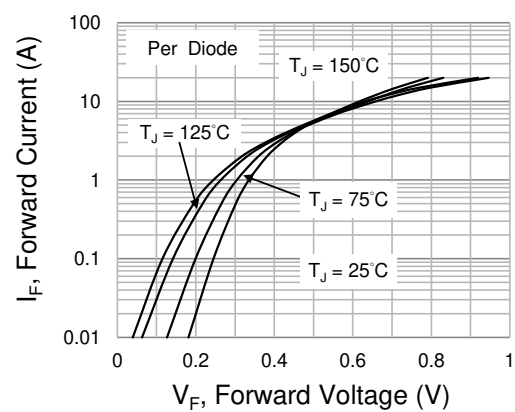


Fig.4 Typical Forward Characteristics

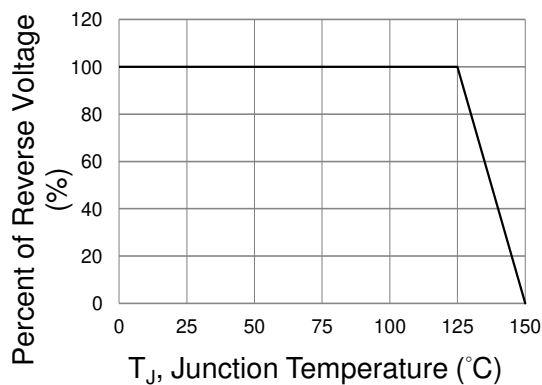


Fig.5 Operating Temperature Derating Curve

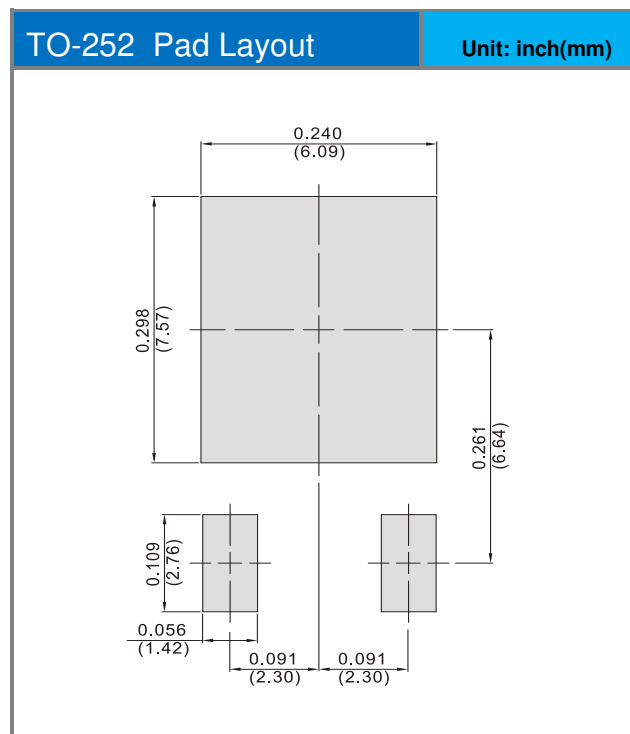


SDM1045CS

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

Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.