



# SDM1050LCS

## ULTRA LOW VF SCHOTTKY RECTIFIER

**VOLTAGE** 50 Volt **CURRENT** 10 Ampere

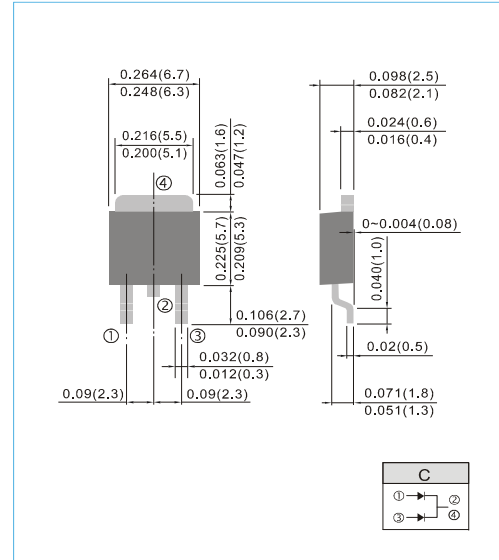
**TO-252** Unit : inch(mm)

### FEATURES

- Ultra low forward voltage drop, low power loss
- High efficiency operation
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### 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.



### MAXIMUM RATINGS(T<sub>A</sub>=25°C unless otherwise noted)

PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	V
Maximum rms voltage	V <sub>RMS</sub>	35	V
Maximum dc blocking voltage	V <sub>R</sub>	50	V
Maximum average forward rectified current	I <sub>F(AV)</sub>	10 5	A
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	80	A
Typical thermal resistance per diode	R <sub>θJC</sub>	8	°C/W
Operating junction temperature range	T <sub>J</sub>	-55 to + 150	°C
Storage temperature range	T <sub>STG</sub>	-55 to + 150	°C

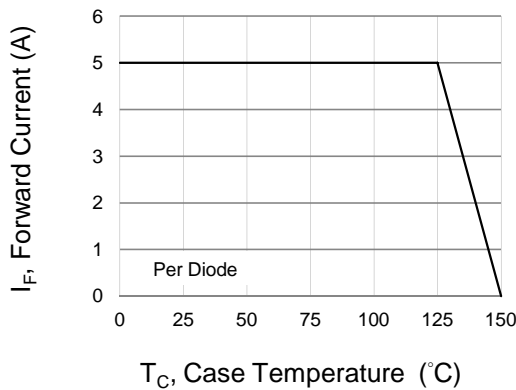
Note : 1. Mounted on 10cm x 10cm x 0.5mm copper pad area



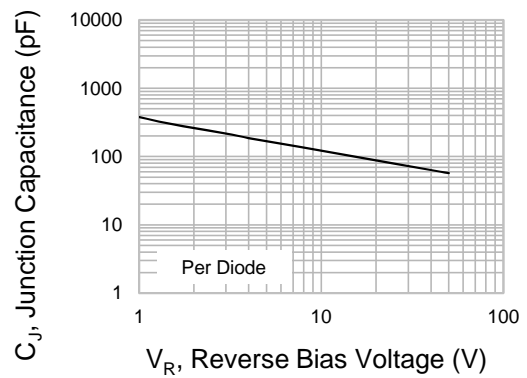
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## ELECTRICAL CHARACTERISTICS(T<sub>A</sub>=25°C unless otherwise noted)

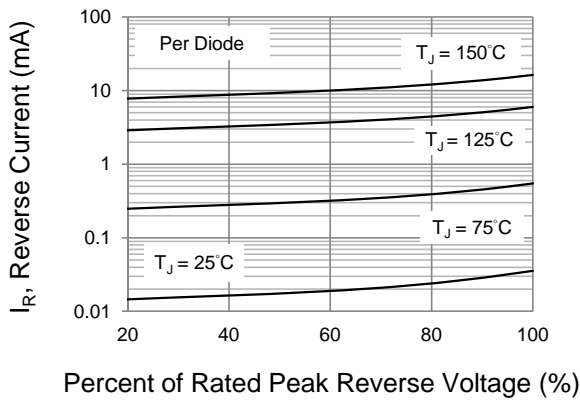
PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT	
Breakdown voltage per diode	V <sub>BR</sub>	I <sub>R</sub> =0.5mA	50	-	-	V	
Instantaneous forward voltage per diode	V <sub>F</sub>	I <sub>F</sub> =1A I <sub>F</sub> =3A I <sub>F</sub> =5A	T <sub>J</sub> =25°C	-	0.34 0.44 0.52	-	V
		I <sub>F</sub> =1A I <sub>F</sub> =3A	T <sub>J</sub> =125°C	-	0.27 0.42	-	V
Reverse current per diode	I <sub>R</sub>	V <sub>R</sub> =40V	T <sub>J</sub> =25°C	-	25	-	μA
		V <sub>R</sub> =50V	T <sub>J</sub> =25°C T <sub>J</sub> =125°C	-	- 6	210 -	μA mA



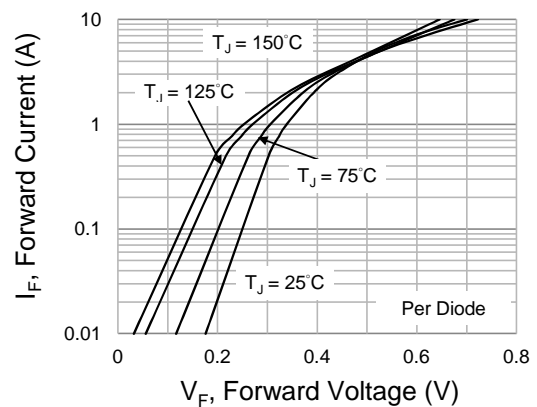
**Fig.1 Forward Current Derating Curve**



**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Forward Characteristics**



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**Part No\_packing code\_Version**

SDM1050LCS\_T0\_00001

For example :

**RB500V-40\_R2\_00001**



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	<b>A</b>	N/A	<b>0</b>	<b>HF</b>	<b>0</b>	serial number
Tape and Reel (T/R)	<b>R</b>	7"	<b>1</b>	<b>RoHS</b>	<b>1</b>	serial number
Bulk Packing (B/P)	<b>B</b>	13"	<b>2</b>			
Tube Packing (T/P)	<b>T</b>	26mm	<b>X</b>			
Tape and Reel (Right Oriented) (TRR)	<b>S</b>	52mm	<b>Y</b>			
Tape and Reel (Left Oriented) (TRL)	<b>L</b>	PANASERT T/B CATHODE UP (PBCU)	<b>U</b>			
FORMING	<b>F</b>	PANASERT T/B CATHODE DOWN (PBCD)	<b>D</b>			



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