

# SDM1050LCS

## ULTRA LOW VF SCHOTTKY RECTIFIER

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

**TO-252**

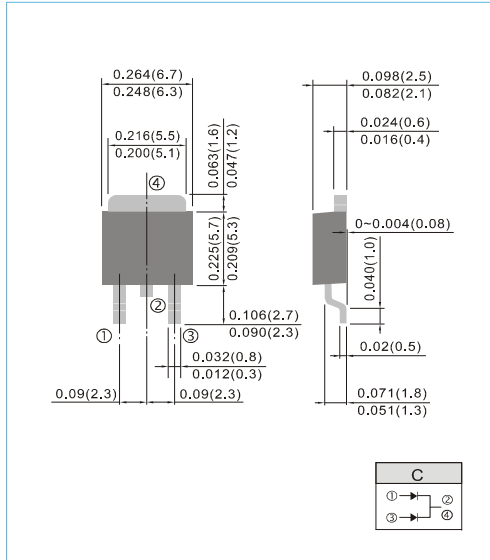
Unit : inch(mm)

### 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)

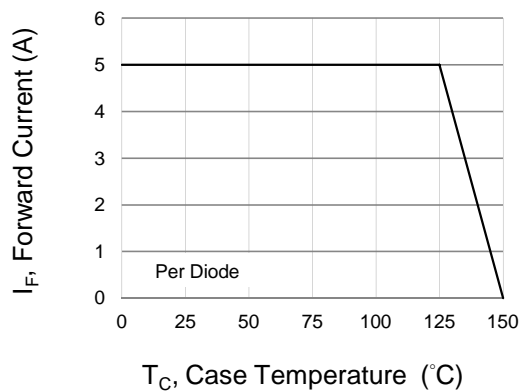
PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	V
Maximum rms voltage	V <sub>RMS</sub>	35	V
Maximum dc blocking voltage	V <sub>R</sub>	50	V
Maximum average forward rectified current	I <sub>F(AV)</sub>	10 5	A
Peak forward surge current : 8.3ms single half sine-wave 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

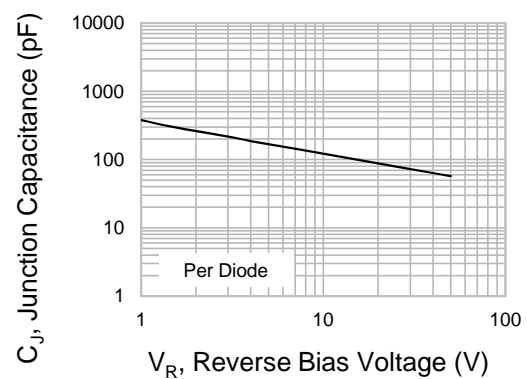
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## ELECTRICAL CHARACTERISTICS( $T_A=25^\circ\text{C}$ unless otherwise noted)

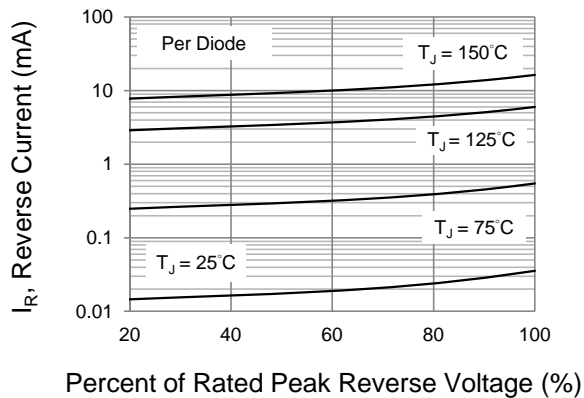
PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Breakdown voltage per diode	$V_{BR}$	$I_R=0.5\text{mA}$	50	-	-	V
Instantaneous forward voltage per diode	$V_F$	$I_F=1\text{A}$	-	0.34	-	V
		$I_F=3\text{A}$	-	0.44	-	
		$I_F=5\text{A}$	-	0.52	0.57	
		$I_F=1\text{A}$	-	0.27	-	V
		$I_F=3\text{A}$	-	0.42	-	
Reverse current per diode	$I_R$	$V_R=40\text{V}$	-	25	-	$\mu\text{A}$
		$V_R=50\text{V}$	-	-	210	$\mu\text{A}$
		$T_J=25^\circ\text{C}$	-	6	-	$\text{mA}$
		$T_J=125^\circ\text{C}$	-	-	-	



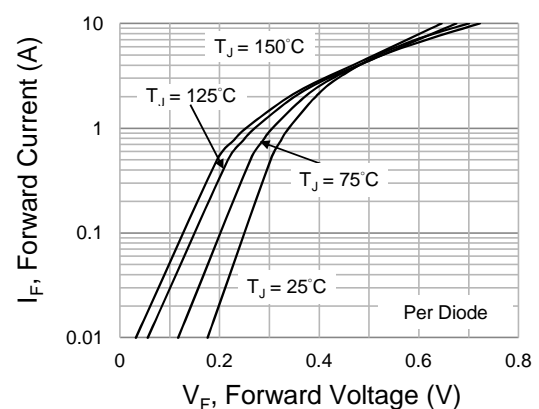
**Fig.1 Forward Current Derating Curve**



**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Forward Characteristics**

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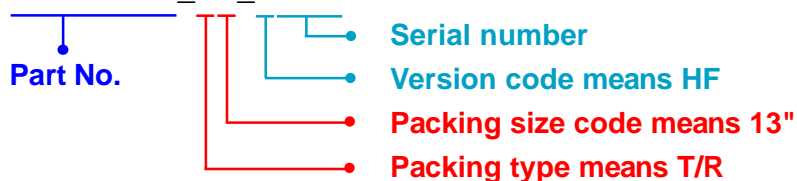
## Part No\_packing code\_Version

SDM1050LCS\_L2\_00001

SDM1050LCS\_S2\_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)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



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