



SDM1650LCS

ULTRA LOW VF SCHOTTKY RECTIFIER

VOLTAGE 50 Volt **CURRENT** 16 Ampere

TO-252

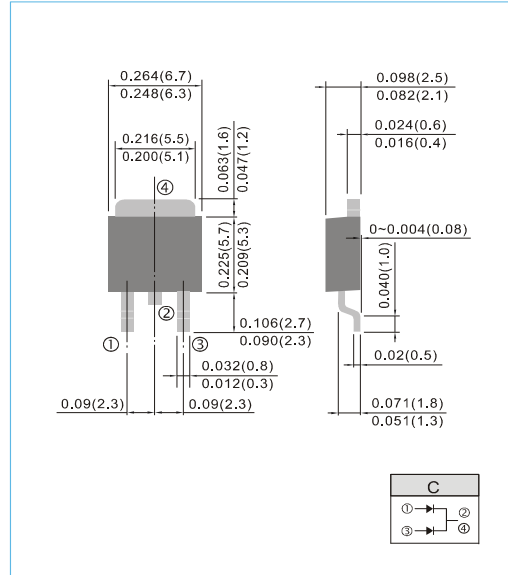
Unit : inch(mm)

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

PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	50	V
Maximum rms voltage	V_{RMS}	35	V
Maximum dc blocking voltage	V_R	50	V
Maximum average forward rectified current	$I_{F(AV)}$	16 8	A
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	120	A
Typical thermal resistance per diode	$R_{\theta JC}$	8	$^{\circ}\text{C}/\text{W}$
Operating junction temperature range	T_J	-55 to + 150	$^{\circ}\text{C}$
Storage temperature range	T_{STG}	-55 to + 150	$^{\circ}\text{C}$

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	$I_F=1\text{A}$ $I_F=5\text{A}$ $I_F=8\text{A}$	$T_J=25^\circ\text{C}$	-	0.33 0.46 0.52	-	V
		$I_F=1\text{A}$ $I_F=5\text{A}$	$T_J=125^\circ\text{C}$	-	0.24 0.43	-	V
Reverse current per diode	I_R	$V_R=40\text{V}$	$T_J=25^\circ\text{C}$	-	15	-	μA
		$V_R=50\text{V}$	$T_J=25^\circ\text{C}$ $T_J=125^\circ\text{C}$	-	- 7	210 -	μA mA

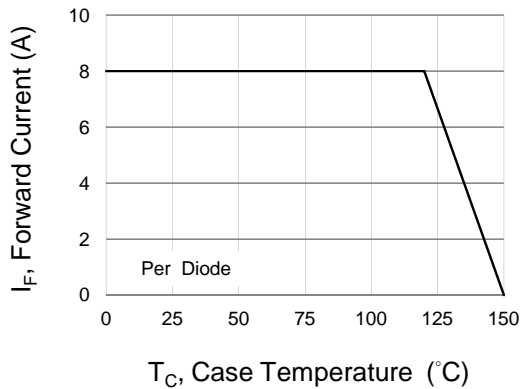


Fig.1 Forward Current Derating Curve

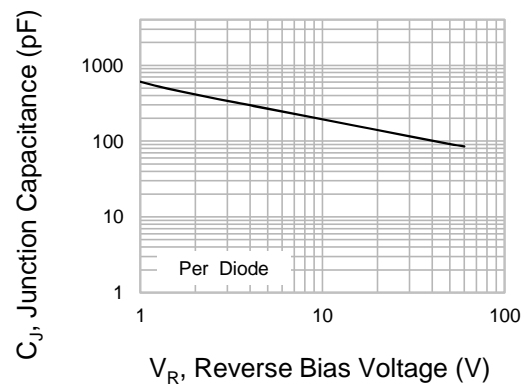


Fig.2 Typical Junction Capacitance

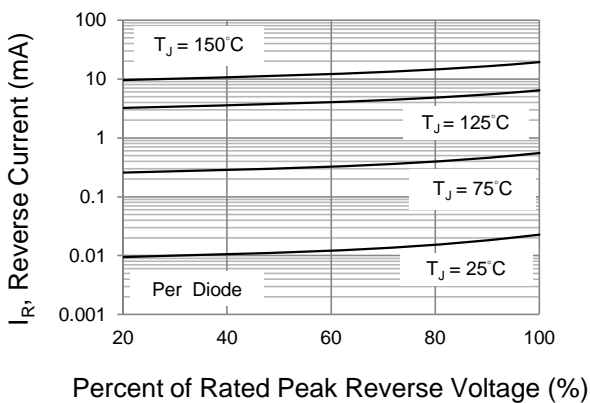


Fig.3 Typical Reverse Characteristics

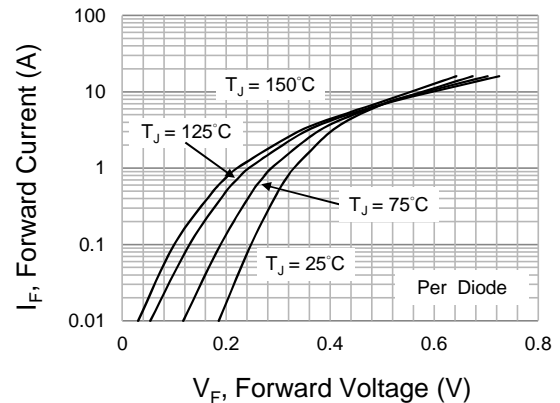


Fig.4 Typical Forward Characteristics



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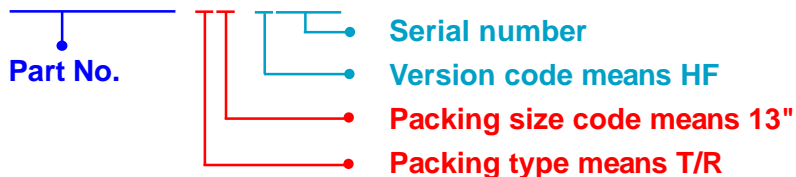
Part No_packing code_Version

SDM1650LCS_L2_00001

SDM1650LCS_S2_00001

For example :

RB500V-40_R2_00001



Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th 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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