



SDM1645CS

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

VOLTAGE 45 Volt **CURRENT** 16 Ampere

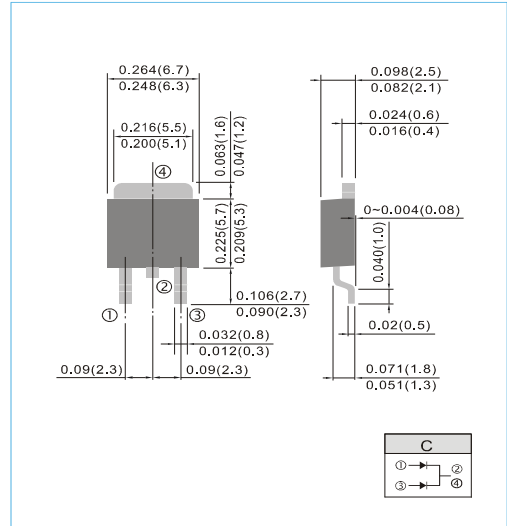
TO-252 Unit : inch (mm)

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 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°C unless otherwise noted)

PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	V _{RRM}	45	V
Maximum rms voltage	V _{RMS}	32	V
Maximum dc blocking voltage	V _R	45	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 _{θJC}	8	°C/W
Operating junction temperature range	T _J	-55 to + 150	°C
Storage temperature range	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 per diode	V _{BR}	I _R =0.5mA	45	-	-	V
Instantaneous forward voltage per diode	V _F	I _F =1A	-	0.32	-	V
		I _F =5A	-	0.43	-	V
		I _F =8A	-	0.49	0.54	V
		I _F =1A	-	0.22	-	V
Reverse current per diode	I _R	V _R =36V	-	20	-	μA
		V _R =45V	-	-	210	μA
		V _R =45V	-	8	-	mA



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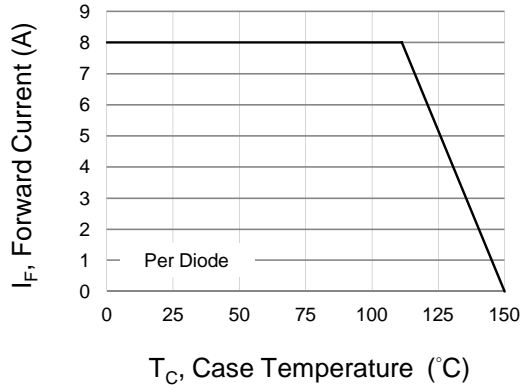


Fig.1 Forward Current Derating Curve

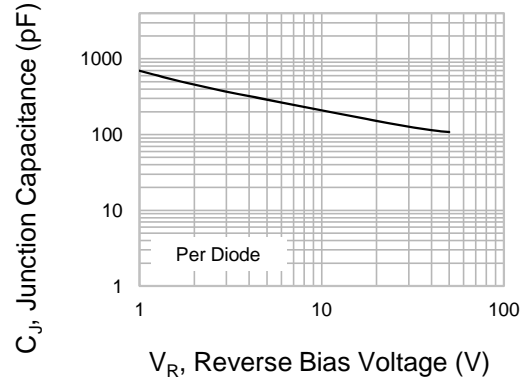


Fig.2 Typical Junction Capacitance

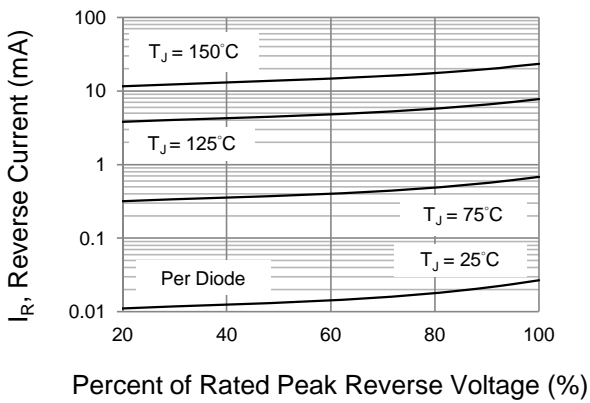


Fig.3 Typical Reverse Characteristics

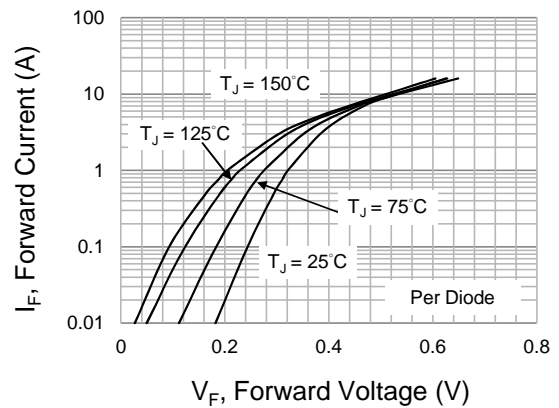


Fig.4 Typical Forward Characteristics

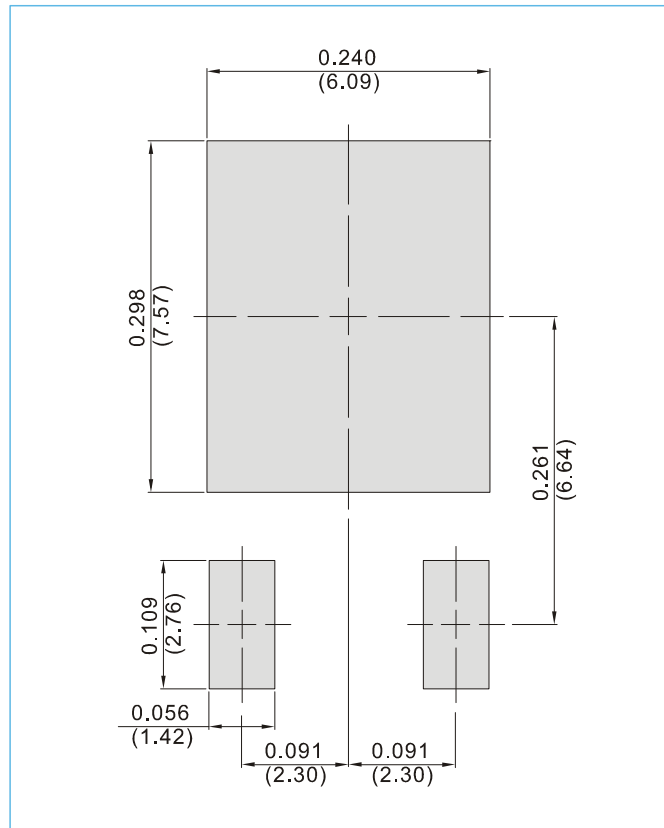


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MOUNTING PAD LAYOUT

TO-252

Unit : inch(mm)



ORDER INFORMATION

- Packing information
T/R - 3K per 13" plastic Reel



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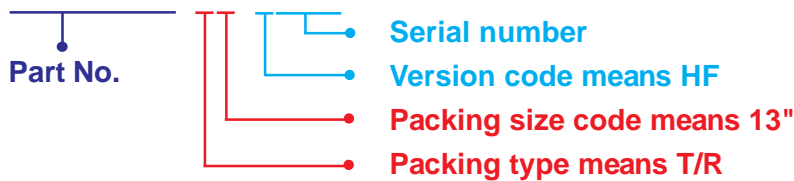
Part No_packing code_Version

SDM1645CS_L2_00001

SDM1645CS_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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