



# SD1020CS~SD1060CS

## SCHOTTKY BARRIER RECTIFIERS

**VOLTAGE** 20 to 60 Volt **CURRENT** 10 Ampere

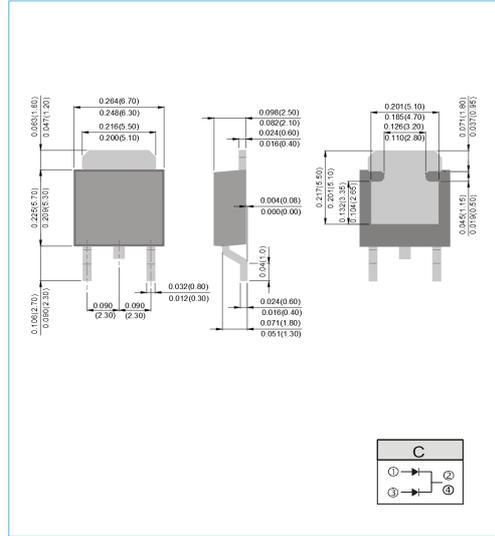
**TO-252** Unit : inch(mm)

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Low power loss, High efficiency
- High surge capacity
- For use in low voltage high frequency inverters, free wheeling, a nd 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
- Approx. Weight : 0.297 grams.
- Marking : Part number



### MAXIMUM RATINGS AND DELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

PARAMETER	SYMBOL	SD1020CS	SD1030CS	SD1040CS	SD1050CS	SD1060CS	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	V
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	V
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	V
Maximum Average Forward Rectified Current at $T_c=75^\circ\text{C}$	$I_{F(AV)}$	10					A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	100					A
Maximum Instantaneous Forward Voltage at 5A per leg	$V_F$	0.55			0.75		V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J=25^\circ\text{C}$ $T_J=100^\circ\text{C}$	$I_R$	0.2 20			0.1 20		mA
Typical Thermal Resistance	$R_{\theta JC}$ $R_{\theta JA}$	5 80					$^\circ\text{C} / \text{W}$
Operating Junction Temperature Range	$T_J$	-55 to +125			-55 to +150		$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150					$^\circ\text{C}$

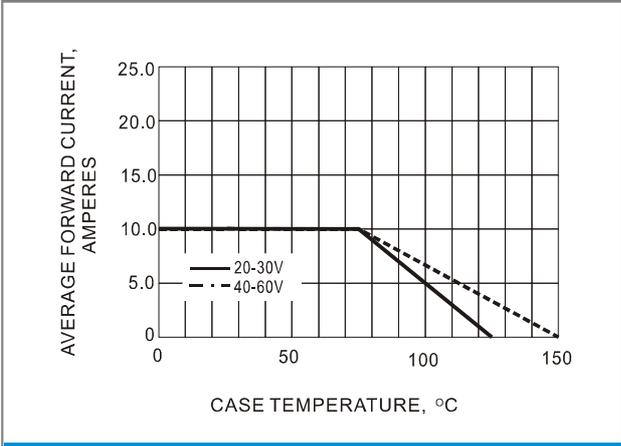
NOTES:

1. Both Bonding and Chip structure are available.

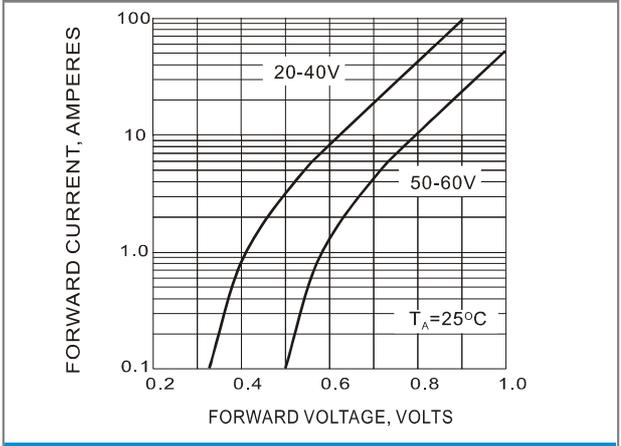


# SD1020CS~SD1060CS

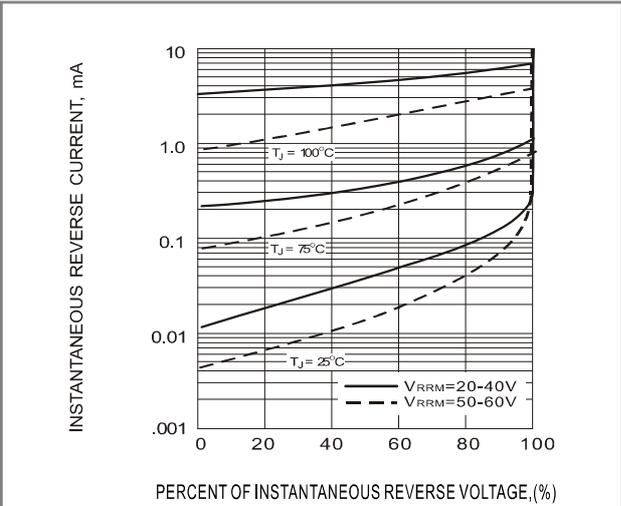
## RATING AND CHARACTERISTIC CURVES



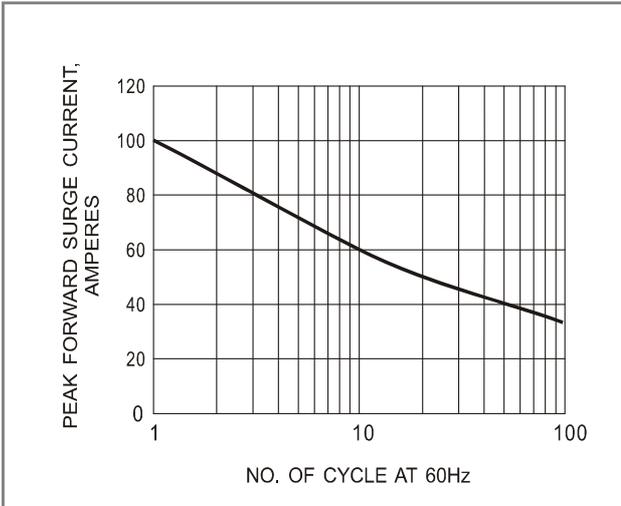
**Fig.1 FORWARD CURRENT DERATING CURVE**



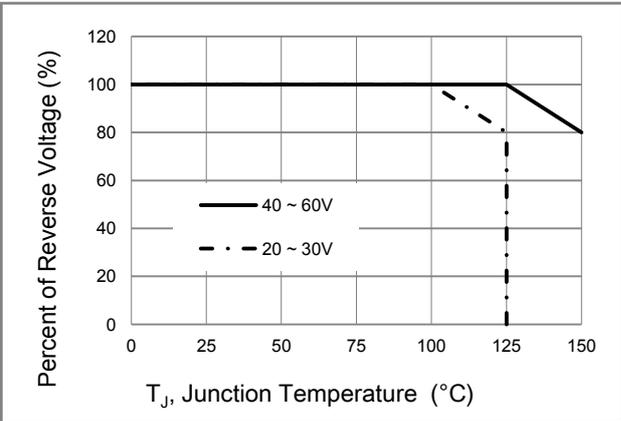
**Fig.2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC**



**Fig.3 TYPICAL REVERSE CHARACTERISTICS**



**Fig.4 MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**Fig.5 Operating Temperature Derating Curve**

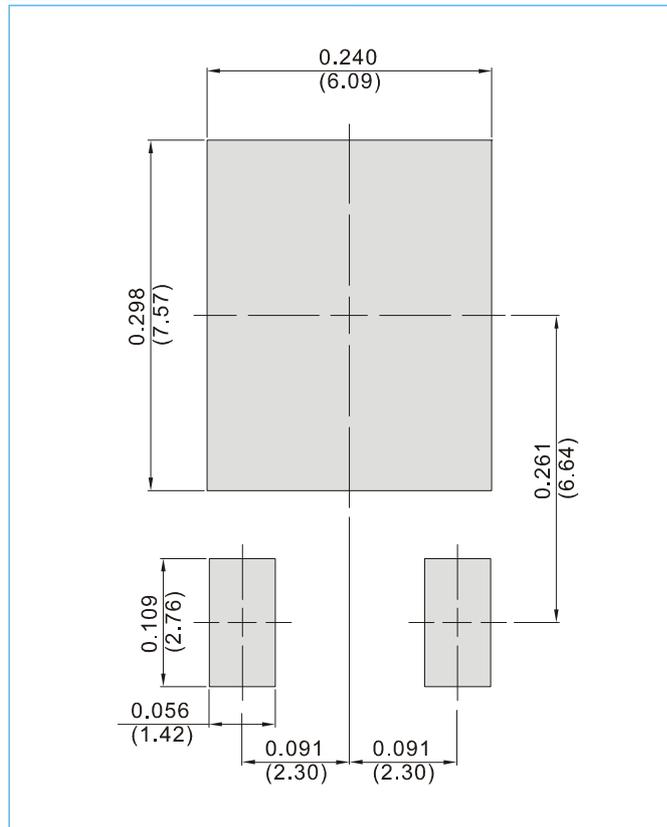


# SD1020CS~SD1060CS

## MOUNTING PAD LAYOUT

TO-252

Unit : inch(mm)



## ORDER INFORMATION

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



# SD1020CS~SD1060CS

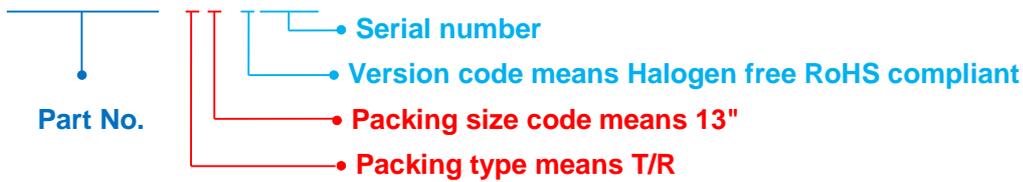
## Part No.\_packing code\_Version

SD1020CS\_L2\_00001

SD1020CS\_S2\_00001

For example :

**RB500V-40\_R2\_00001**



Packing Code <b>XX</b>				Version Code <b>X</b>		Serial number <b>XXXX</b>
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HSF Level	1 <sup>st</sup> Code	2 <sup>nd</sup> _5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	A	N/A	0	Halogen free RoHS compliant	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS compliant	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			



## SD1020CS~SD1060CS

---

### 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.