SBM250L

ULTRA LOW VF SCHOTTKY RECTIFIER

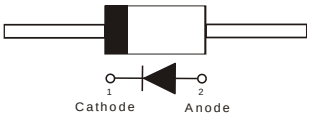
Voltage	50 V	Current	2 A

Features

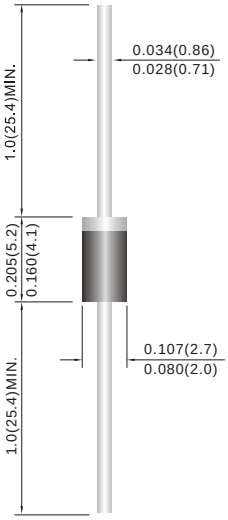
- Ultra low forward voltage drop, low power loss
- High efficiency operation
- Lead free in compliance with EU RoHS 2011/65/EU directive

Mechanical Data

- Case: Molded plastic, DO-41
- Terminals: Axial leads,solderable per MIL-STD-750, Method 2026
- Polarity : Color band denotes cathode end
- Approx. Weight: 0.012 ounces, 0.336 grams
- Marking: Part number



DO-41 Unit : inch(mm)



Maximum Ratings (T_A=25°C unless otherwise noted)

PARAMETER		SYMBOL	LIMIT	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		$I_{F(AV)}$	2	A
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load		I_{FSM}	50	A
Typical junction capacitance (V_R=4V, f=1MHz)		C_J	125	pF
Typical thermal resistance	(Note 1)	$R_{\theta JA}$	80	°C/W
	(Note 2)	$R_{\theta JC}$	40	
Operating junction temperature range		T_J	-55 to +150	°C
Storage temperature range		T_{STG}	-55 to +150	°C

Note : 1. The testing condition of the thermal resistance (junction to ambient) is based on 10mm lead length between mini copper pads.

2. The testing condition of the thermal resistance (junction to case) is base on 10mm lead length between two 10cm x 10cm copper pads.

SBM250L

Electrical Characteristics (T_A=25°C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION		MIN.	TYP.	MAX.	UNITS
Breakdown voltage	V_{BR}	I_R=0.5mA	T_J=25°C	50	-	-	V
Instantaneous forward voltage	V_F	I_F=0.5A	T_J=25°C	-	0.33	-	V
		I_F=2A		-	0.44	0.5	
		I_F=0.5A	T_J=125°C	-	0.26	-	V
		I_F=2A		-	0.4	-	
Reverse current	I_R	V_R=40V	T_J=25°C	-	8	-	μA
		V_R=50V	T_J=25°C	-	-	40	μA
			T_J=125°C	-	3	-	mA

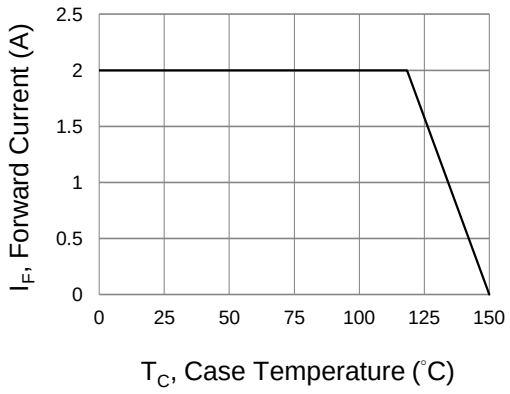


Fig.1 Forward Current Derating Curve

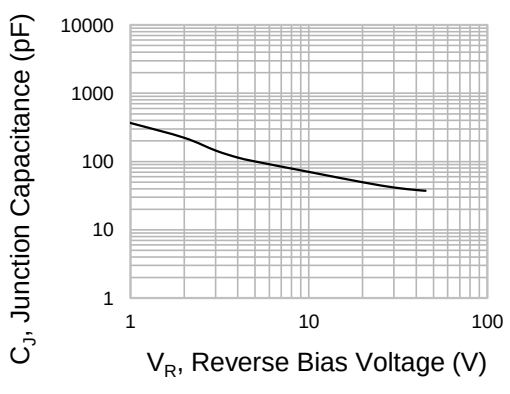


Fig.2 Typical Junction Capacitance

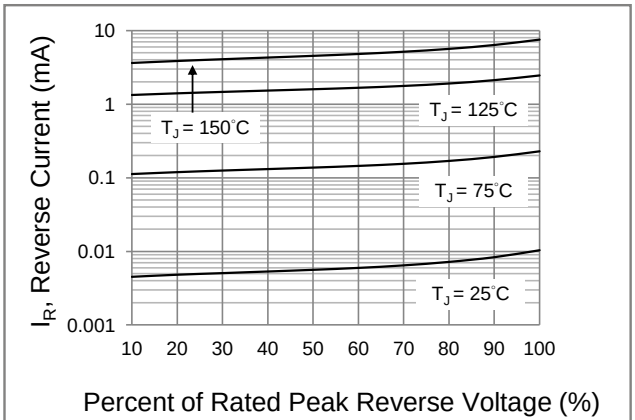


Fig.3 Typical Reverse Characteristics

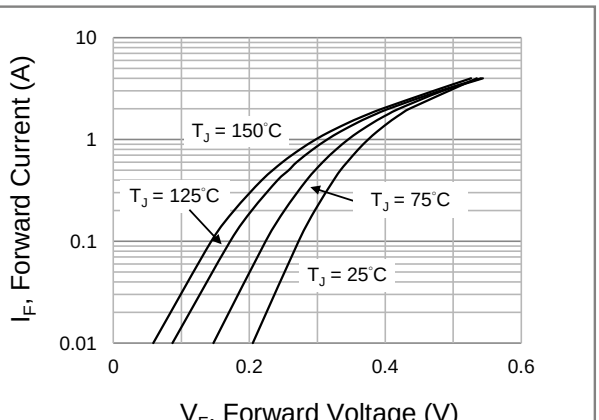


Fig.4 Typical Forward Characteristics

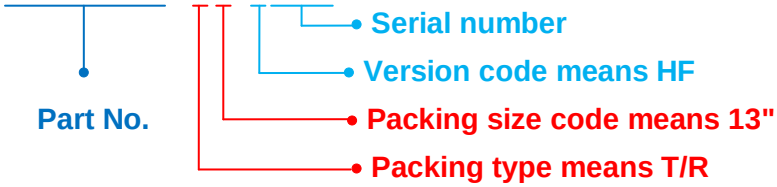
SBM250L

Part No_packing code_Version

SBM250L_AY_00001
SBM250L_AY_10001
SBM250L_B0_00001
SBM250L_B0_10001
SBM250L_R2_00001
SBM250L_R2_10001

For example :

RB500V-40_R2_00001



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

SBM250L

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.