SBP5200SYG

Chip Integration Technology Corporation

5A Schottky Rectifier

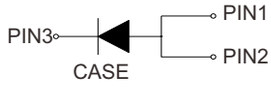
■ Features

- Ideal for automated placement .
- Low power losses.
- High forward surge capability.
- Meets MSL level1, per J-STD-020, LF maximum peak of 260 °C.

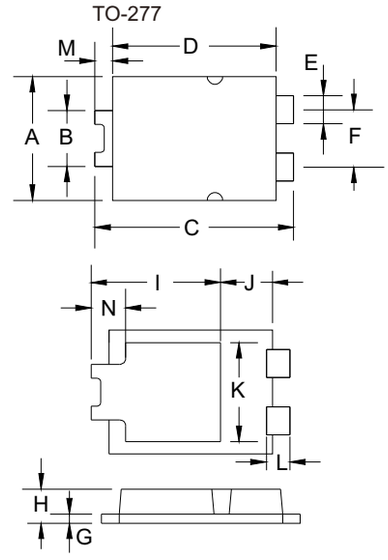
■ Mechanical data

- Epoxy:UL94V-0 rated flame retardant
- Case : Molded plastic, TO-277
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Weight : Approximated 0.093 gram

■ Circuit Diagram



■ Outline



Dim	Min(mm)	Max(mm)
A	3.90	4.10
B	1.70	1.90
C	6.40	6.60
D	5.30	5.50
E	0.80	1.00
F	1.85 ref.	
G	0.35	0.45
H	1.10	1.20
I	4.10	4.50
J	1.50	1.90
K	2.90	3.40
L	0.55	0.75
M	0.50 ref.	
N	1.15 ref.	

■ Maximum ratings(Tj= 25ºC unless otherwise specified.)

Parameter	Conditions	Symbol	SBP5200SYG	UNIT
Device marking code			SBP5200SY	
Working Peak Reverse Voltage		V_{RWM}	200	V
Forward Rectified Current		I_O	5	A
Forward Surge Current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}	125	A
Thermal Resistance	Junction to case	$R_{\theta JC}$	6	°C/W
	Junction to ambient	$R_{\theta JA}$	70	°C/W
Operating Junction Temperature		T_J	-55 ~ +175	°C

■ Electrical Characteristics

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	UNIT
Peak Forward Voltage	I_F = 5A, T_J = 25ºC	V_F			900	mV
	I_F = 5A, T_J= 125ºC			640		
Leakage Current	V_R = 200V, T_J = 25ºC	V			500	uA
	V_R = 200V, T_J = 100ºC				20	mA
Reverse Breakdown Voltage	I_R = 0.5mA, T_J = 25ºC	V_{BR}	200			V

Document ID :DS-21K195
Revised Date : 2026/11/5
Revision : C

■ Rating and Characteristic Curves

Fig. 1 - Forward Characteristics

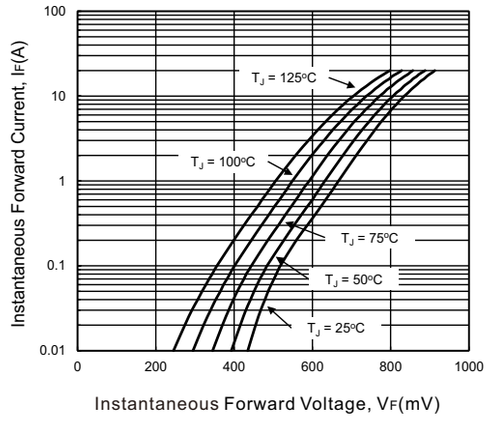


Fig. 2 -Reverse Characteristics

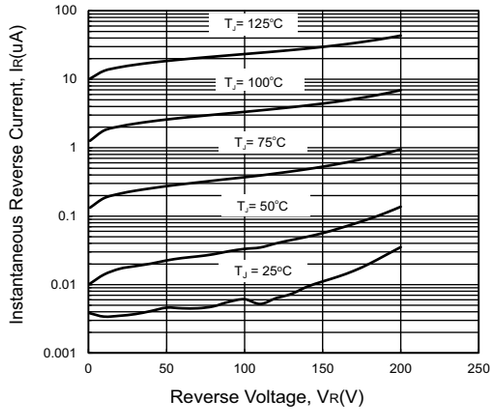


Fig. 3 -Forward Power Dissipation

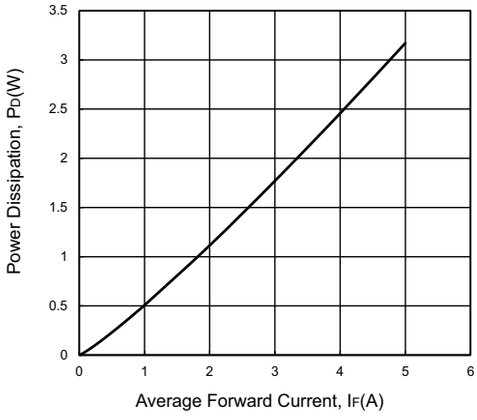


Fig. 4 -Forward Current Derating Curve

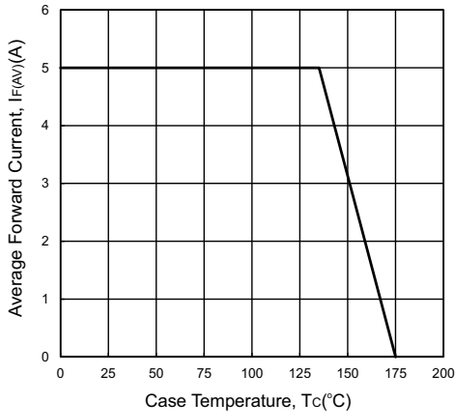
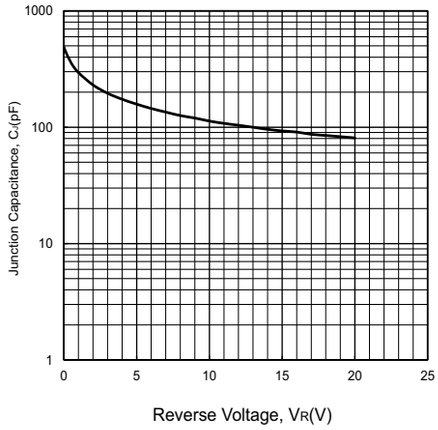
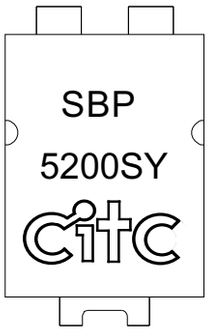


Fig. 5 -Junction Capacitance



Document ID :DS-21K195
Revised Date : 2026/11/5
Revision : C

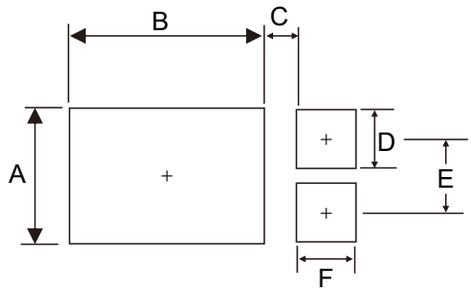
■ Marking information



SBP5200SY: Product type marking code

: CITC Logo

■ TO-277 foot print



Dim	A	B	C	D	E	F
MIN.(mm)	3.36	4.86	0.85	1.40	1.84	1.40

■ Ordering/Packing information

Part number		Case	Q'TY/Reel (PCS)	Q'TY/Box (PCS)	Q'TY/Carton (PCS)
Halogen free	SBP5200SYG	TO-277	5,000	10,000	40,000

Notes：1. For packaging details please reference our website at https://www.citcorp.com.tw/tw/All_Product.php

- The epoxy molding compound used for encapsulation may exhibit either a glossy or matte black surface finish, depending on material batch variation.
- Applicable to component leads with either bright or matte tin finishes, which may vary depending on material batch differences.
- This surface appearance variation is purely cosmetic, has no impact on product functionality, performance, or reliability, and is not considered a quality defect nor a basis for product rejection.
- CITC reserves the right to make changes to this document and its products and specifications at any time without notice.
- Customers should obtain and confirm the latest product information and specifications before final design, purchase or use.
- CITC makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does CITC assume any liability for application assistance or customer product design.
- CITC does not warrant or accept any liability with products which are purchased or used for any unintended or unauthorized application.
- No license is granted by implication or otherwise under any intellectual property rights of CITC.
- CITC products are not authorized for use as critical components in life support devices or systems without express written approval of CITC.

http://www.citcorp.com.tw/ Tel:886-3-5600628 Fax:886-3-5600636

Add:Rm. 3, 2F., No.32, Taiyuan St., Zhubei City, Hsinchu County 302, Taiwan (R.O.C.)

Document ID :DS-21K195
Revised Date : 2026/11/5
Revision : C