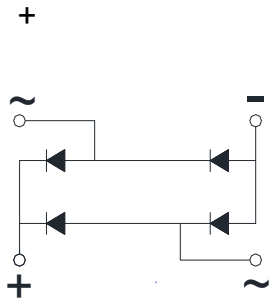


Bridge Rectifiers



Features

- UL recognition, file #E230084
- Universal 3-way terminals: snap-on, wire wrap-around, or PCB mounting
- Glass passivated chip junction
- High surge current capability
- Low thermal resistance
- Solder dip 275 °C max. 7 s, per JESD 22-B106

Typical Applications

General purpose use in AC/DC bridge full wave rectification for power supply, home appliances, office equipment, industrial automation applications.

Mechanical Data

- **Package:** S25VB
Molding compound meets UL 94 V-0 flammability rating, -
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102

■Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	S50VB10	S50VB20	S50VB40	S50VB60	S50VB80	S50VB100	S50VB120
Device marking code			S50VB10	S50VB20	S50VB40	S50VB60	S50VB80	S50VB100	S50VB120
Maximum Repetitive Peak Reverse Voltage	VRRM	V	100	200	400	600	800	1000	1200
Maximum RMS Voltage	VRMS	V	70	140	280	420	560	700	840
Maximum DC blocking Voltage	VDC	V	100	200	400	600	800	1000	1200
Average rectified output current @60Hz sine wave, R-load, T _C =55°C	I _O	A	50						
Forward Surge Current (Non-repetitive) @8.3ms, Half-sine wave, 1 cycle, T _J =25°C	I _{FSM}	A	500						
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, T _J =25°C			1000						
Current squared time @1ms≤t≤8.3ms T _J =25°C, Rating of per diode	I ² t	A ² S	1038						
Storage temperature	T _{stg}	°C	-55 ~ +150						
Junction temperature	T _J	°C	-55 ~ +150						
Dielectric strength @ Terminals to case, AC 1 minute	V _{dis}	KV	2.5						
Mounting torque @Recommend torque: 5kg·cm	Tor	kg·cm	8						

S50VB10 THRU S50VB120

■Electrical Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	S50VB10	S50VB20	S50VB40	S50VB60	S50VB80	S50VB100	S50VB120
Maximum instantaneous forward voltage drop per diode	V _F	V	I _{FM} =25A	1.05						
Maximum DC reverse current at rated DC blocking voltage per diode	I _R	μA	T _j =25°C	5						
			T _j =125°C	100						
Typical junction capacitance	C _j	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	190						

■Thermal Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	S50VB10	S50VB20	S50VB40	S50VB60	S50VB80	S50VB100	S50VB120
Thermal Resistance Between junction and case, With heatsink	R _{θJ-C}	°C/W	1.0						

Note: Device mounted on 75mm x 45mm x 5.5mm Aluminum Plate Heatsink.

■Ordering Information (Example)

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT (g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
S50VB10 ~ S50VB120	A1	Approximate 20	50	50	500	Paper Box

■ Characteristics (Typical)

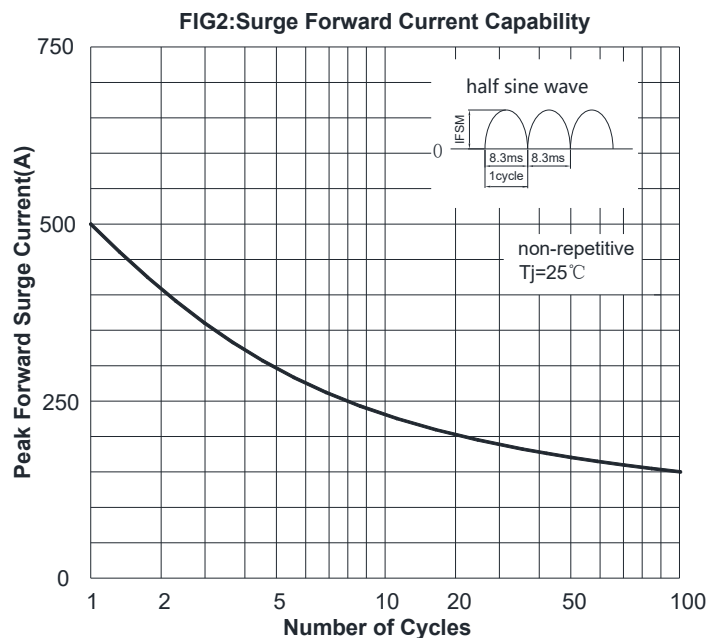
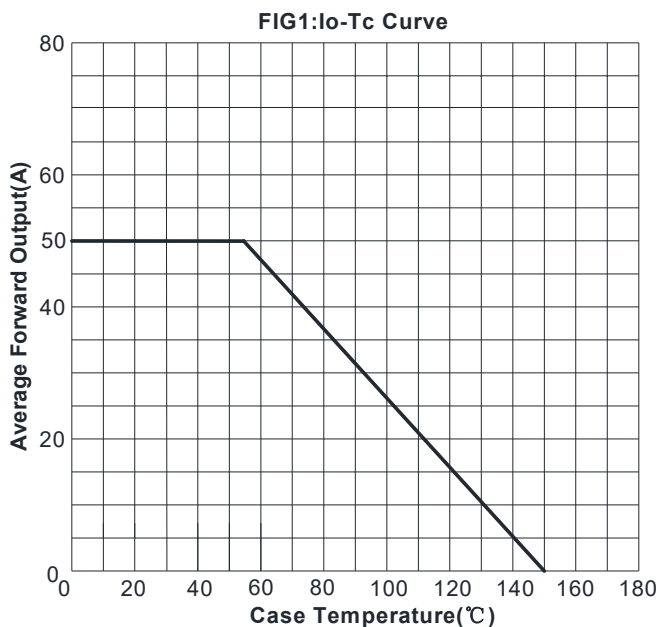


FIG3: Typical Forward Voltage

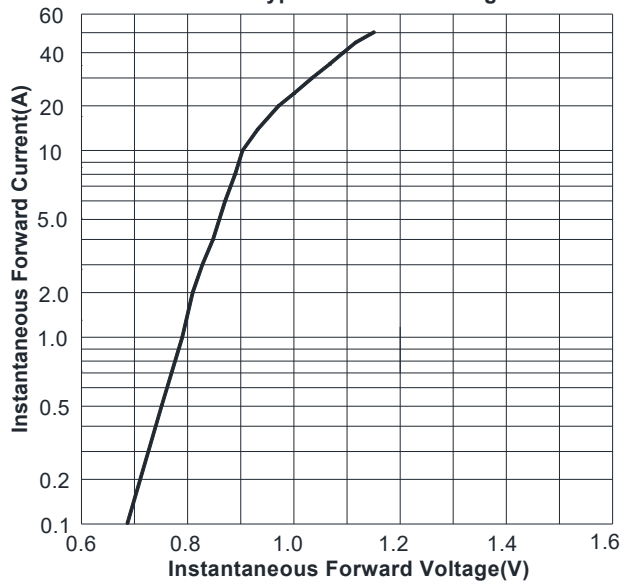
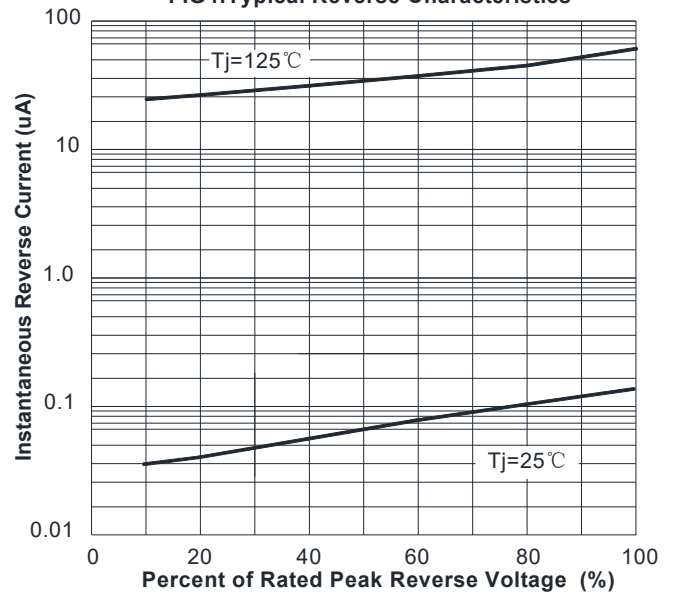
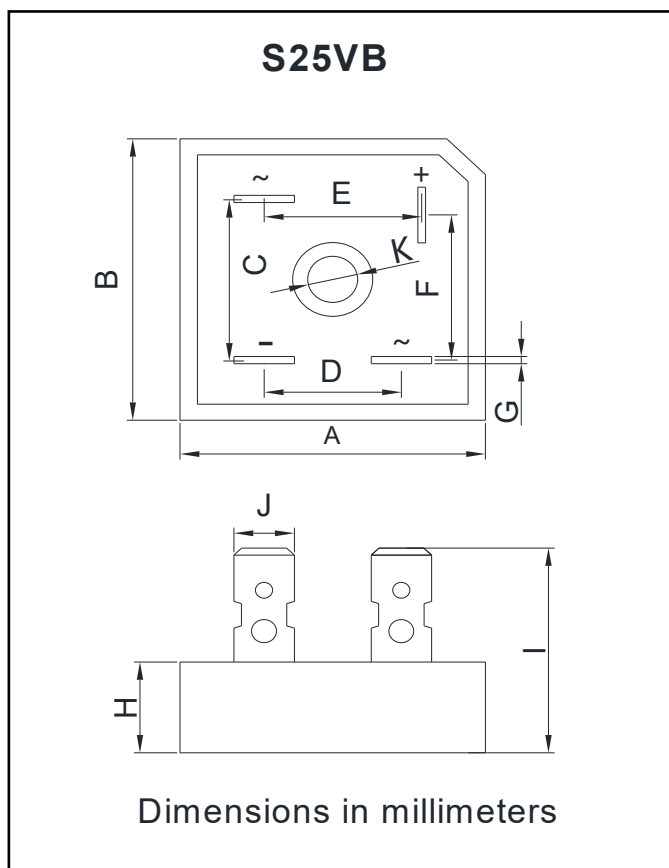


FIG4: Typical Reverse Characteristics



■ Outline Dimensions



S25VB		
Dim	Min	Max
A	31.1	32.1
B	31.1	32.1
C	17.6	18.6
D	13.7	14.7
E	15.8	16.8
F	15.8	16.8
G	0.75	0.85
H	9.5	10.5
I	/	25
J	6.2	6.4
K	4.5	5.5

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