



Surface Mount Bridge Rectifier

Features

- Surface mount bridge, small package
- Ideal for printed circuit boards
- Glass passivated chip junction
- High forward current capability up to 6.0A
- High surge current capability
- High heat dissipation capability
- Low profile package
- Low forward voltage drop
- Plastic package has Underwrites Laboratory Flammability Classification 94V-0

Mechanical Data

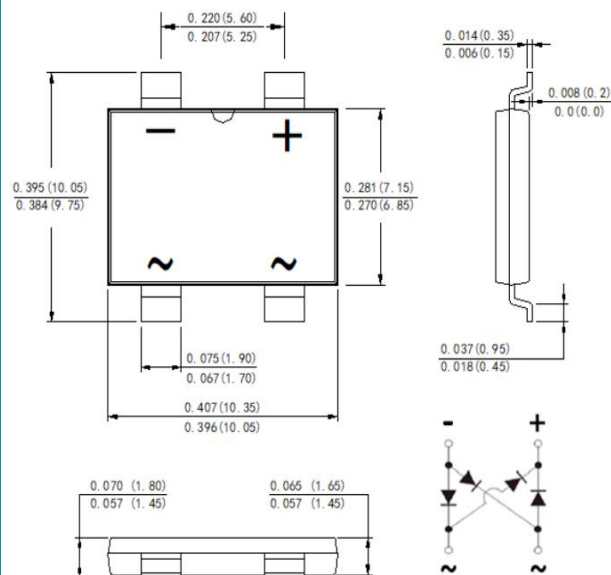
- Case: CBS
- Epoxy meets UL-94V-0 Flammability rating
- Terminals: Matte tin plated leads, solderable per J-STD-002 and JESD22-B102
- High temperature soldering guaranteed
- Solder Reflow 260°C, 10seconds
- Polarity: As marked on body
- Marking: Type number

Applications

- General purpose use in AC-to-DC bridge full wave rectification for Fast Charging, Switching Power Supply, USB PD, Adapter and 3-in-1 Power Board, etc.

Reverse Voltage - 1000 Volts
Forward Current - 6.0 Amperes

CBS

RoHS
COMPLIANT

Package Outline Dimensions in Inches (Millimeters)

Maximum Ratings and Electrical Characteristics

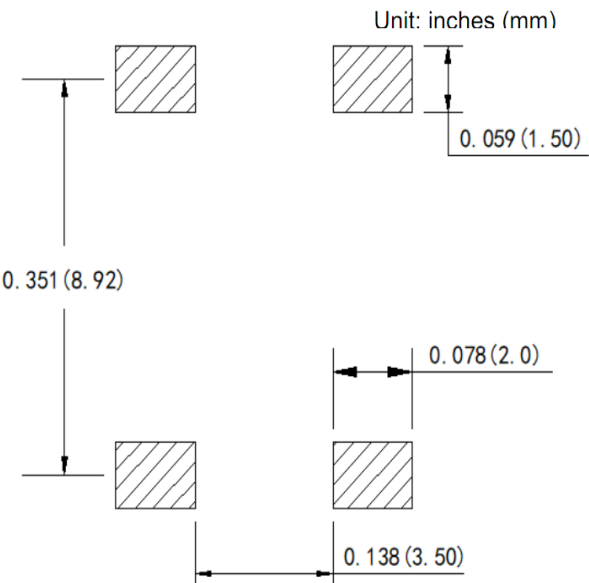
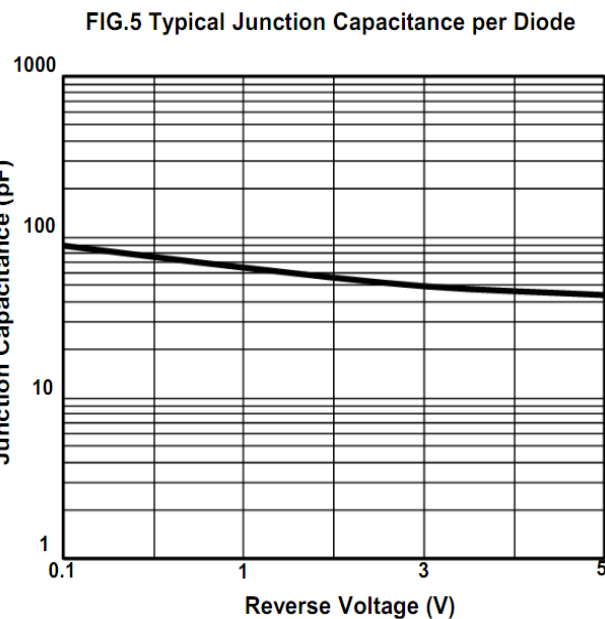
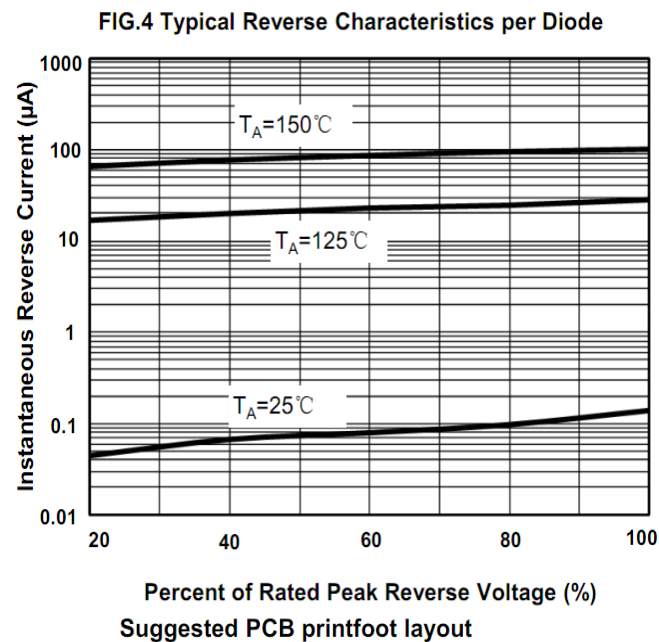
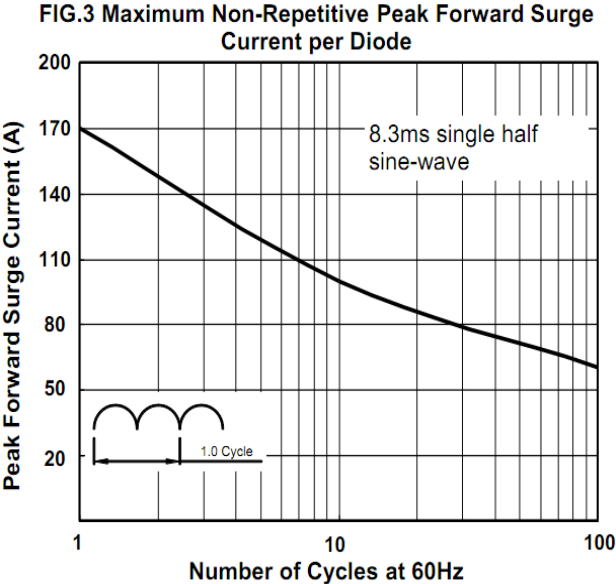
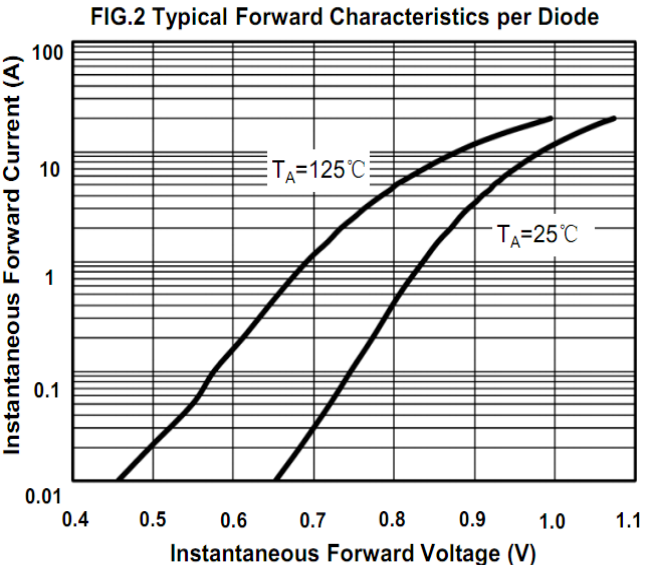
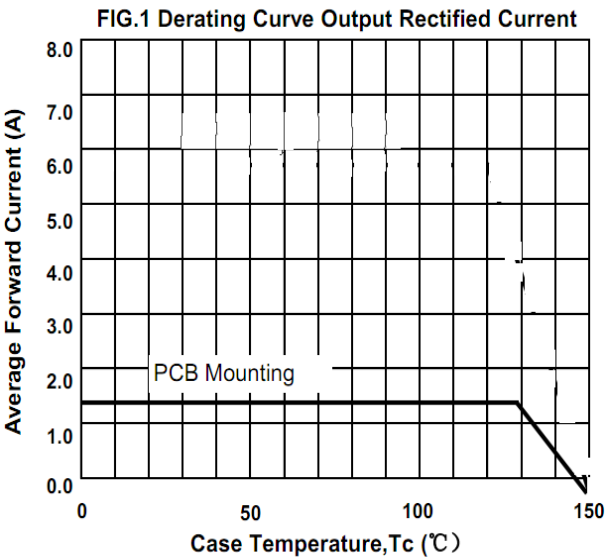
Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Characteristics	Symbol	CBS610	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	1000	V
Maximum RMS Voltage	V _{RMS}	700	V
Maximum DC Blocking Voltage	V _{DC}	1000	V
Maximum Average Forward Rectified Output Current @ T _A =25°C	I _(AV)	6.0	A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I _{FSM}	170	A
I ² t Rating for Fusing (t<8.3ms)	I ² t	120	A ² s
Instantaneous forward voltage drop per Diode @ I _F =1.0A	V _F	0.88	V
@ I _F =3.0A		0.93	
@ I _F =6.0A		0.96	
Maximum DC Reverse Current at Rated @ T _J =25°C	I _R	5.0	μA
DC Blocking Voltage per Diode @ T _J =125°C		100	
Typical Junction Capacitance per Diode (Note1)	C _J	43	pF
Typical Thermal Resistance to Ambient	R _{θJA}	68	°C/W
Typical Thermal Resistance to case	R _{θJC}	10	
Typical Thermal Resistance to lead	R _{θJL}	22	
Operating Junction and Storage Temperature Range	T _J , T _{STG}	-55 to +150	°C

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 5.0V DC.





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