

Glass Passivated Bridge Rectifiers

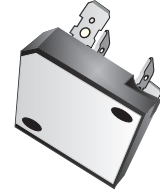


SC50VB80-G Thru. SC50VB160-G


Reverse Voltage: 800V and 1600V

Forward Current: 50A

RoHS Device

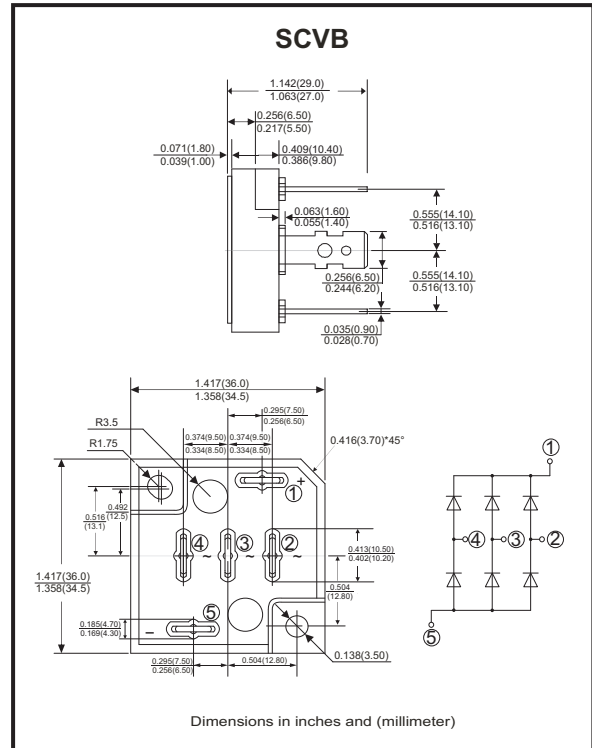


Features

- 3 phase bridge rectifiers.
- Surge overload -500 Amperes peak.
- Low forward voltage drop.
- UL recognized file # E349301 

Mechanical Data

- Polarity: As marked on Body.
- Mounting position: Any.
- Weight: 45 grams.



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%

Parameter	Symbol	SC50VB80-G	SC50VB160-G	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	800	1600	V
Maximum RMS Bridge Input Voltage	V_{RMS}	560	1120	V
Maximum Average Forward Rectified Output Current @ $T_c=55^\circ\text{C}$	$I_{(AV)}$	50		A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Super Imposed On Rated Load (JEDEC Method)	I_{FSM}	500		A
Current Squared time ($1\text{ms} < t < 10\text{ms}$)	I^2t	1037.5		A^2s
Dielectric Strength	V_{dis}	2000		V
Mounting Torque	TOR	0.8		N.m
Maximum Forward Voltage Drop Per Element At 17.5A Peak	V_F	1.05	1.1	V
Maximum Reverse Current At Rated DC Blocking Voltage Per Element @ $T_A=25^\circ\text{C}$	I_R	10	100	μA
Typical Thermal Resistance (Note 1)	$R_{\theta JC}$	Max: 0.7		$^\circ\text{C}/\text{W}$
Operating Temperature Range	T_J	-55 to +150		$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150		$^\circ\text{C}$

Notes: 1. Thermal Resistance Junction to case.

Company reserves the right to improve product design, functions and reliability without notice.

REV: E

Rating and Characteristics Curves (SC50VB80-G Thru. SC50VB160-G)

Fig.1 - Derating Curve Output Rectified Current

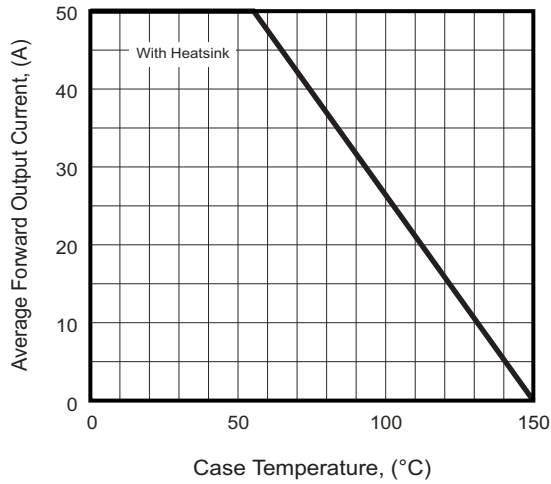


Fig.2 - Typical Forward Characteristics

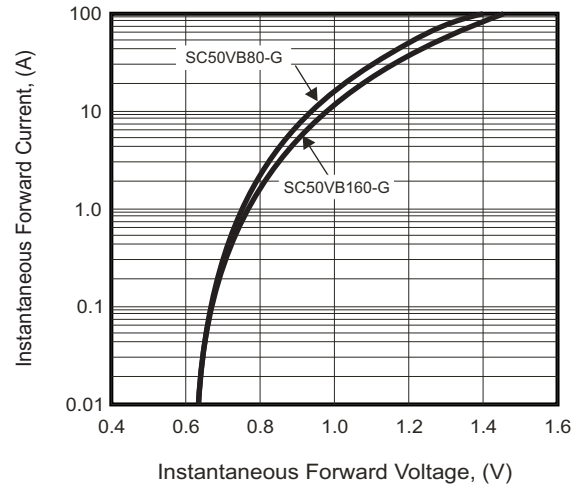


Fig.3 - Maximum Forward Surge Current

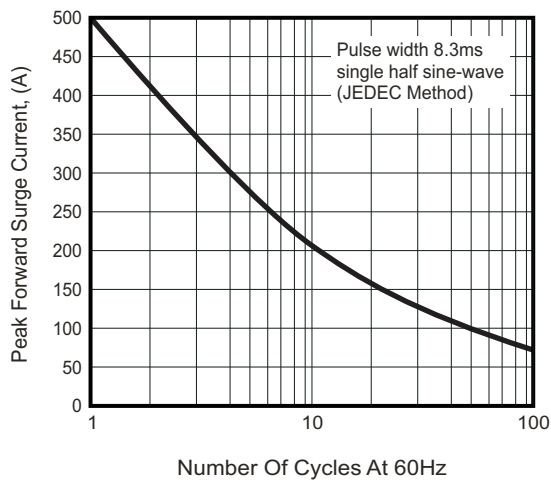
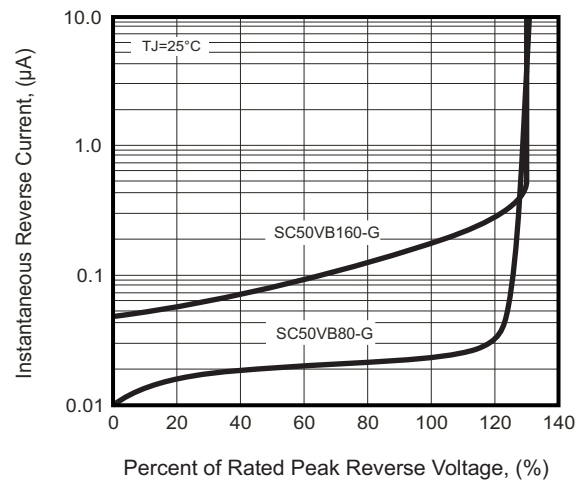
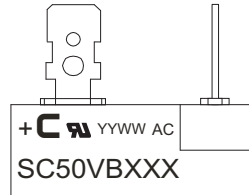


Fig.4 - Typical Reverse Characteristics



Marking Code

Part Number	Marking code
SC50VB80-G	SC50VB80
SC50VB160-G	SC50VB160



C = Compchip Logo

YY WW

↓ Weeks of the year

↓ A.D. year latter two figures

XXX = Product type marking code

Standard Packaging

Case Type	BULK PACK	
	BOX (pcs)	CARTON (pcs)
SCVB	25	100

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