

REVERSE VOLTAGE - **1600**Volts
FORWARD CURRENT - **50**Amperes

SCVB

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- The technical drawing consists of three views of a PCB assembly:
- Side View (Left):** Shows the profile of the assembly. Key dimensions include a total width of 1.412 MAX (29.0), a top section width of .256 (6.5) with a .071 (1.8) offset, and a bottom section width of .354 (9.0) with a .315 (8.0) offset. A central feature has a height of .555 (14.1) and a width of .516 (13.1). A bottom flange has a thickness of .035 (0.9) and a width of .028 (0.7).
 - Top View (Right):** Shows the layout of the components on the PCB. The overall dimensions are 1.417 MAX (36.0) by .504 (12.8). It features a central area with three vertical slots labeled 1, 2, and 3, and two horizontal slots labeled 4 and 5. A circular feature is labeled R1.75. Dimensions for these features include .295 (7.5) for the vertical slots, .374 (9.5) for the horizontal slots, and .334 (8.5) for the central spacing. A .146 (3.7) dimension is shown for the right edge.
 - Schematic Diagram (Bottom):** A circuit diagram showing a bridge-like structure with diodes. It includes components labeled 1, 2, 3, 4, and 5, connected in a specific configuration.

Dimensions in inches and (millimeters)

Rating at 25°C ambient temperature unless otherwise specified.

Resistive or inductive load 60Hz.

For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	SC50VB160	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	1600	V
Maximum RMS Bridge Input Voltage	VRMS	1120	V
Maximum Average Forward Rectified Output Current @ Tc=55℃	I(AV)	50	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load	IFSM	500	A
Current Squared time (1ms<t<10ms)	I²t	500	A²S
Dielectric Strength	Vdis	2000	V
Mounting Torque	TOR	0.8	N.m
Maximum Forward Voltage Drop Per Element at 17.5A Peak	VF	1.1	V
Maximum Reverse Current at Rated DC Blocking Voltage Per Element @ TA=25℃	IR	100	µA
Tyical Thermal Resistance (Note1)	RθJC	Max: 0.7	℃/W
Operating Temperature Range	TJ	-55 to +150	℃
Storage Temperature Range	TSTG	-55 to +150	℃

NOTES: 1. Thermal Resistance Junction to case.

FIG.1-MAXMUN FORWARD SURGE CURRENT

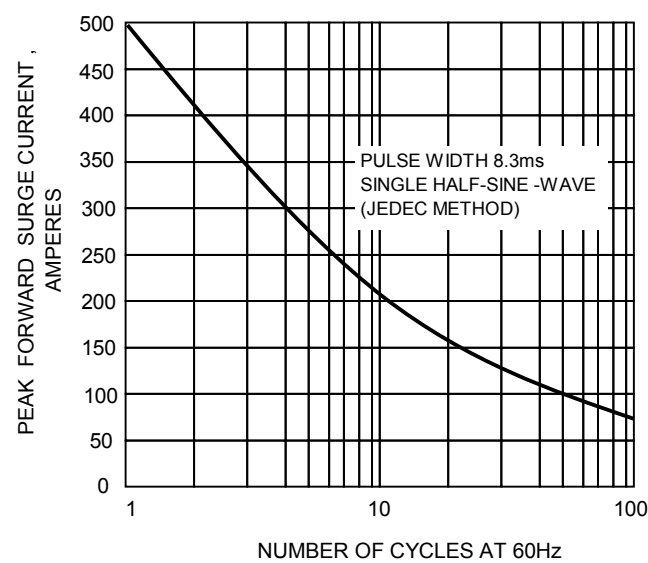


FIG.2- DERATING CURVE OUTPUT RECTIFIED CURRENT

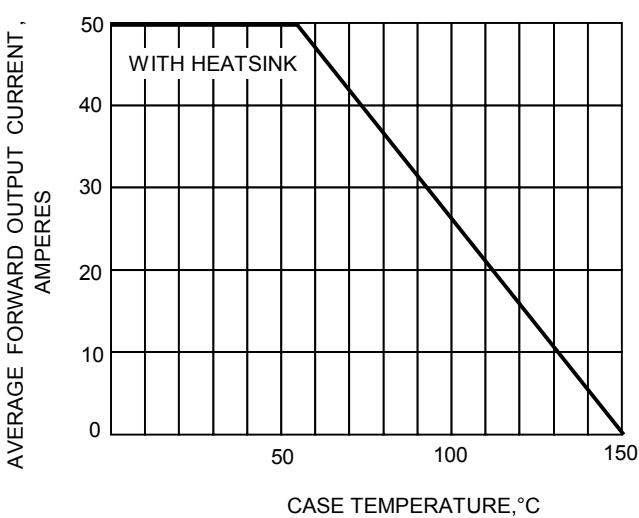


FIG.3-TYPICAL FORWARD CHARACTERISTICS

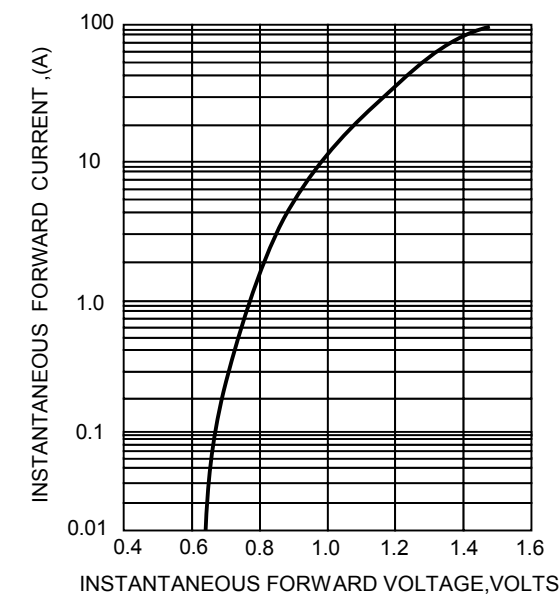


FIG.4-TYPICAL REVERSE CHARACTERISTICS

