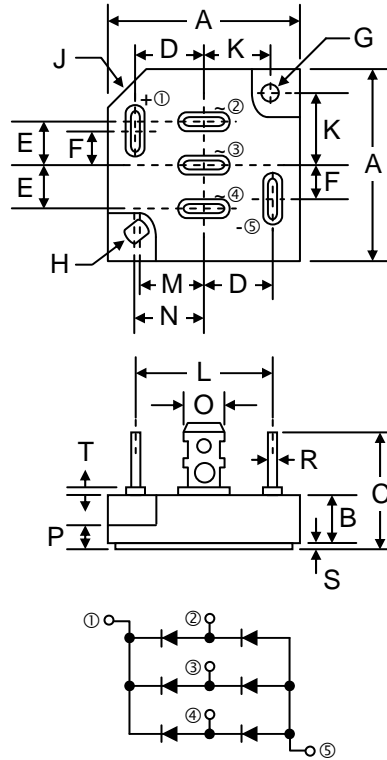


### Features

- Glass Passivated Die Construction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- Ideal for Printed Circuit Boards
- Plastic Material has UL Recognition  
Flammability Classification Rating 94V-0

### Mechanical Data

- Case: Epoxy Case  
Mounted in the Bridge Encapsulation
- Terminals: Plated Faston Lugs Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram Below
- Weight: 45 grams (approx.)
- Mounting Position: Bolt Down on Heatsink With Silicone Thermal Compound Between Module and Mounting Surface for Maximum Heat Transfer Efficiency
- Mounting Torque: 0.8 N.m Max.
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4**



SVT		
Dim	Min	Max
A	34.5	36.0
B	9.8	10.4
C	27.0	29.0
D	13.1	14.1
E	8.5	9.5
F	6.5	7.5
G	3.5 Ø Typical	
H	R 1.75 Typical	
J	3.7 x 45°	
K	—	12.8
L	26.2	28.2
M	—	12.5
N	—	13.1
O	6.2	6.5
P	5.5	6.5
R	0.7	0.9
S	1.0	1.8
T	1.4	1.6
All Dimensions in mm		

### Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	S30VT60	S30VT80	S30VT160	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>				
Working Peak Reverse Voltage	V <sub>RWM</sub>	600	800	1600	V
DC Blocking Voltage	V <sub>R</sub>				
RMS Reverse Voltage	V <sub>R(RMS)</sub>	420	560	1120	V
Average Rectified Output Current @T <sub>C</sub> = 100°C	I <sub>O</sub>	35			A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	350			A
Forward Voltage per diode @I <sub>F</sub> = 12.5A	V <sub>FM</sub>	1.05			V
Peak Reverse Current At Rated DC Blocking Voltage	I <sub>RM</sub>	10			µA
I <sup>2</sup> t Rating for Fusing per diode (1ms < t < 10ms)	I <sup>2</sup> t	800		300	A <sup>2</sup> s
Thermal Resistance Junction to Case (Note 1)	R <sub>JC</sub>	0.7			°C/W
RMS Isolation Voltage Terminals to Case, t = 1min	V <sub>ISO</sub>	2000			V
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150			°C

Note: 1. Mounted on 229 x 89 x 117mm Al. finned heatsink.

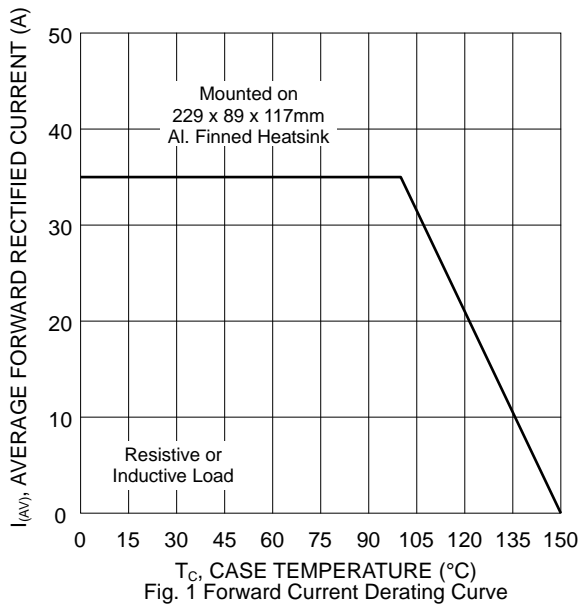


Fig. 1 Forward Current Derating Curve

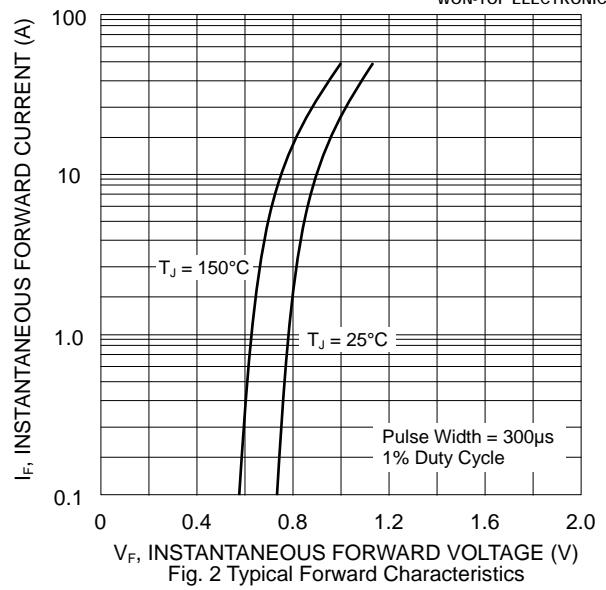


Fig. 2 Typical Forward Characteristics

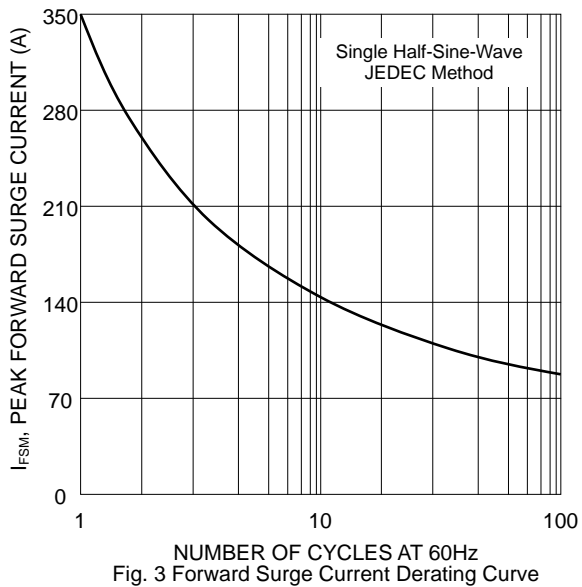


Fig. 3 Forward Surge Current Derating Curve

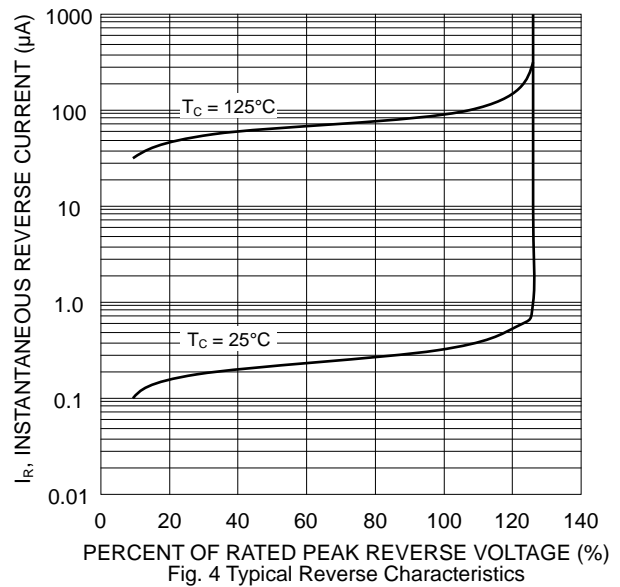


Fig. 4 Typical Reverse Characteristics

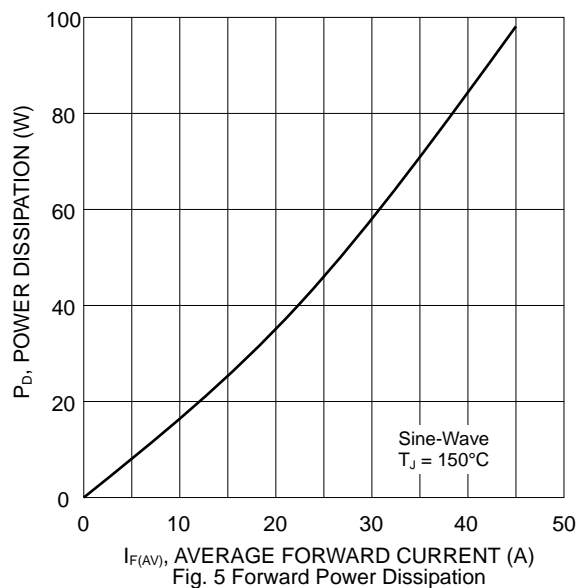
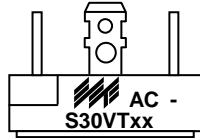


Fig. 5 Forward Power Dissipation

## MARKING INFORMATION



S30VTxx = Device Number  
 xx = 60, 80 or 160  
 Polarity = As Marked on Body

## PACKAGING INFORMATION

### BULK


Inner Box Size L x W x H (mm)	Quantity (PCS)	Carton Size L x W x H (mm)	Quantity (PCS)	Approx. Gross Weight (KG)
195 x 195 x 40	25	405 x 205 x 240	250	12.0

**Note:** 1. Paper box, white or brown color.

## ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
S30VT60	Bridge Module	25 Units/Box
S30VT80	Bridge Module	25 Units/Box
S30VT160	Bridge Module	25 Units/Box

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
2. **To order RoHS / Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, S30VT60-LF.**

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**WARNING:** DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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