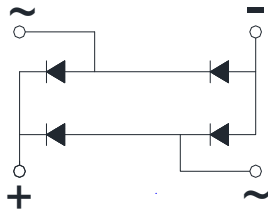
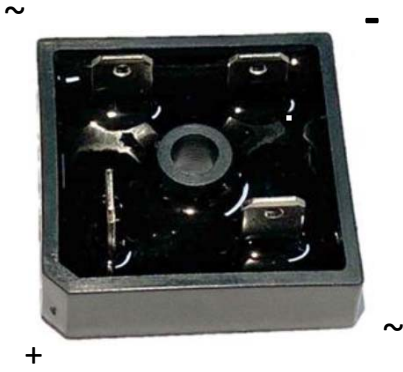




# S50VB80 DT THRU S50VB160 DT

## Bridge Rectifiers



### Features

- 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:** S50VB DT  
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	S50VB80 DT	S50VB100 DT	S50VB120 DT	S50VB160 DT
Device marking code			S50VB80 DT	S50VB100 DT	S50VB120 DT	S50VB160 DT
Maximum Repetitive Peak Reverse Voltage	VRRM	V	800	1000	1200	1600
Maximum RMS Voltage	VRMS	V	560	700	840	1120
Maximum DC blocking Voltage	VDC	V	800	1000	1200	1600
Average rectified output current @60Hz sine wave, R-load, Tc =80°C	IO	A	50			
Forward Surge Current (Non-repetitive) @8.3ms, Half-sine wave, 1 cycle, Tj=25°C	IFSM	A	500			
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25°C			1000			
Current squared time @1ms≤t≤8.3ms Tj=25°C, Rating of per diode	I²t	A²S	1038			
Storage temperature	Tstg	°C	-55 ~ +150			
Junction temperature	Tj	°C	-55 ~ +150			
Dielectric strength @ Terminals to case, AC 1 minute	Vdis	KV	2.5			
Mounting torque @Recommend torque: 5kg·cm	Tor	kg·cm	8			



# S50VB80 DT THRU S50VB160 DT

## ■ Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	S50VB80 DT	S50VB100 DT	S50VB120 DT	S50VB160 DT
Maximum instantaneous forward voltage drop per diode	V <sub>F</sub>	V	I <sub>FM</sub> =25A	1.05			
Maximum DC reverse current at rated DC blocking voltage per diode	I <sub>R</sub>	μA	T <sub>j</sub> =25°C	5			
			T <sub>j</sub> =125°C	500			
Typical junction capacitance	C <sub>j</sub>	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	320			265

## ■ Thermal Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

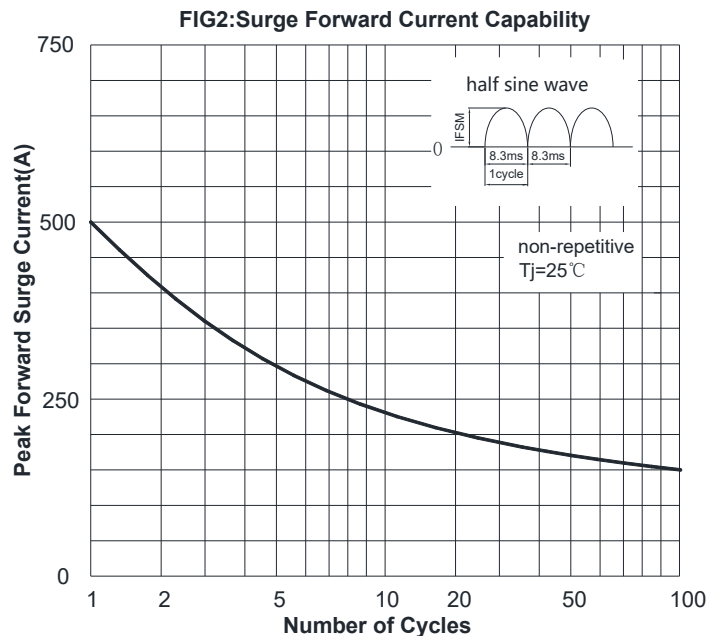
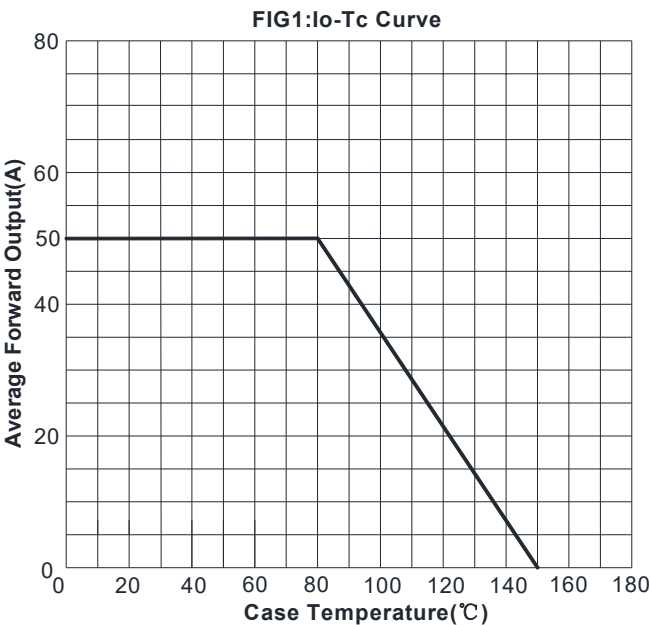
PARAMETER	SYMBOL	UNIT	S50VB80 DT	S50VB100 DT	S50VB120 DT	S50VB160 DT
Thermal Resistance Between junction and case, With heatsink	R <sub>θJ-C</sub>	°C/W	0.9			

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
S50VB80 DT ~ S50VB160 DT	A1	18.3	40	40	400	Paper Box

## ■ Characteristics (Typical)





# S50VB80 DT THRU S50VB160 DT

FIG3: Typical Forward Voltage

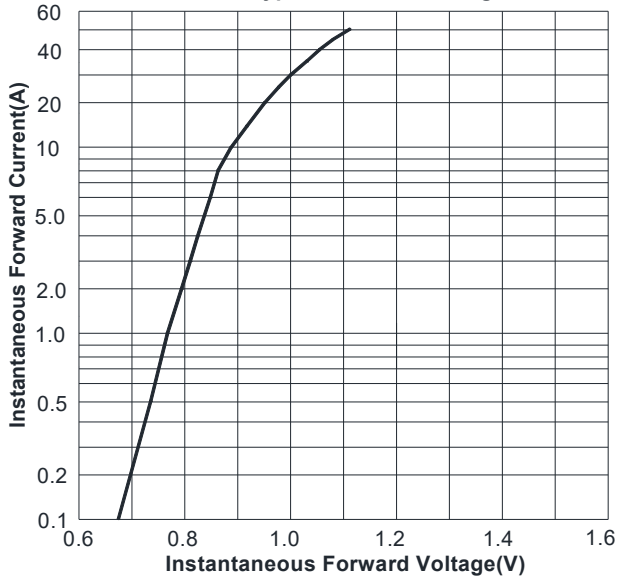
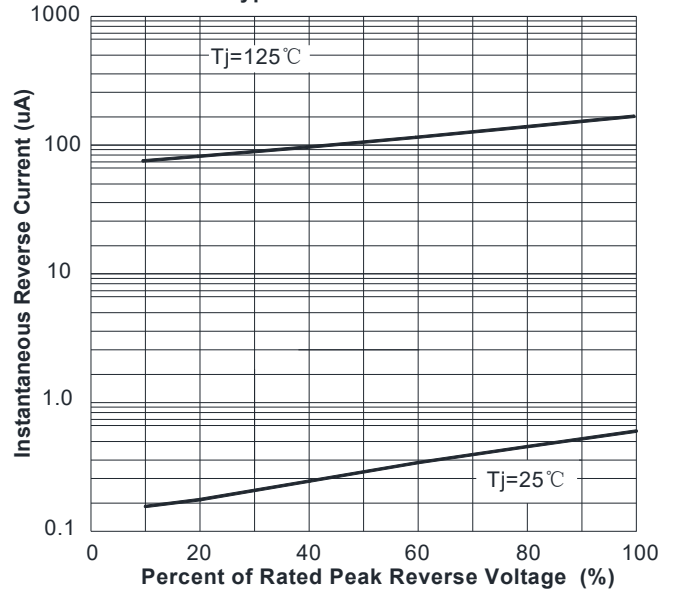
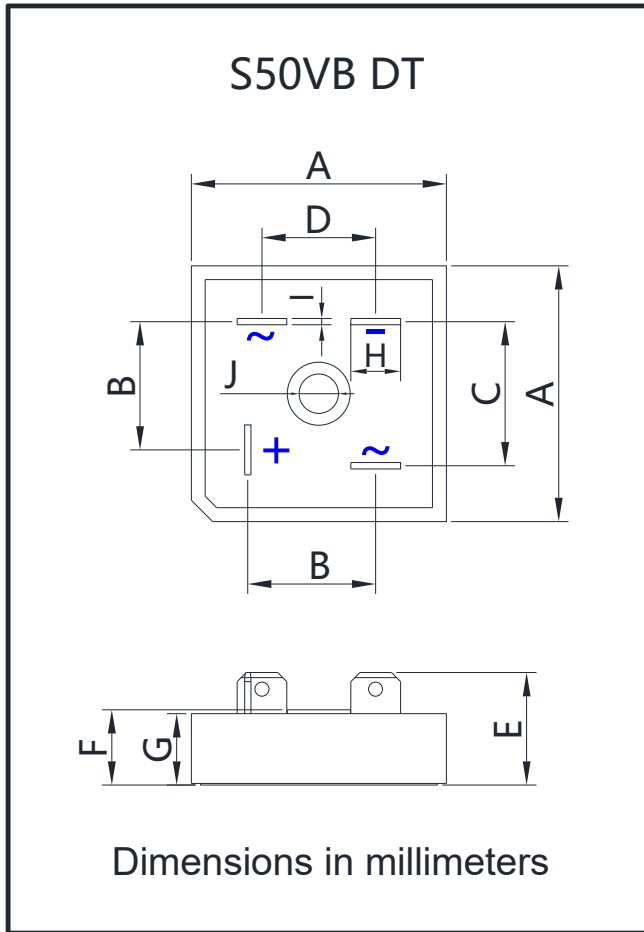


FIG4: Typical Reverse Characteristics



## Outline Dimensions



S50VB DT		
Dim	Min	Max
A	32.0	33.0
B	15.7	16.7
C	17.7	18.7
D	13.9	14.9
E	13.8	14.8
F	9.0	10.0
G	8.5	9.5
H	6.1	6.5
I	0.75	0.85
J	4.9	5.3



## S50VB80 DT THRU S50VB160 DT

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