



S50VB80 DT THRU S50VB160 DT

Bridge Rectifiers

Features

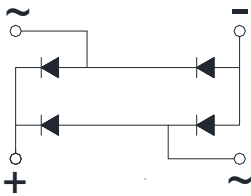
- High-Reliability
- Heat Resistance
- Low IR
- Faston terminal

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 (T_a=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
Working Peak Reverse Voltage	V _{RWM}	V	640	800	960	1280
Maximum Repetitive peak reverse voltage	V _{RRM}	V	800	1000	1200	1600
Maximum DC Blocking Voltage	V _{DC}	V	800	1000	1200	1600
Maximum RMS Voltage	V _{RMS}	V	560	700	840	1120
Average Rectified Output Current @60Hz sine wave, R-load, With heatsink T _c =80°C	I _O	A	50			
Surge(Non-repetitive)Forward Current @60HZ sine wave, 1 cycle, T _a =25°C	I _{FSM}	A	500			
Current Squared Time @1ms≤t<8.3ms T _j =25°C, Rating of per diode	I ² t	A ² S	1040			
Typical junction capacitance @Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C	C _j	pF	320			
Storage Temperature	T _{stg}	°C	-55~+150			
Junction Temperature	T _j	°C	-55 ~+150			
Dielectric Strength, Terminals to case, AC 1 minute	V _{dis}	KV	2.0			
Mounting torque @recommend torque: 1.5N·m	Tor	N·m	2			



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■Electrical Characteristics (T_a=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 _{FM}	V	I _{FM} =25A	1.2			
Maximum DC reverse current at rated DC blocking voltage per diode	I _{RRM}	μA	V _{RM} =V _R RM	T _a =25°C	10		
				T _a =125°C	500		

■Thermal Characteristics (T_a=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 _{θJ-C}	°C/W	0.9			

■Ordering Information (Example)

PREFERRED P/N	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
S50VB DT	18.3	50	50	500	Paper Box



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■ Characteristics (Typical)

FIG1:Io-Tc Curve

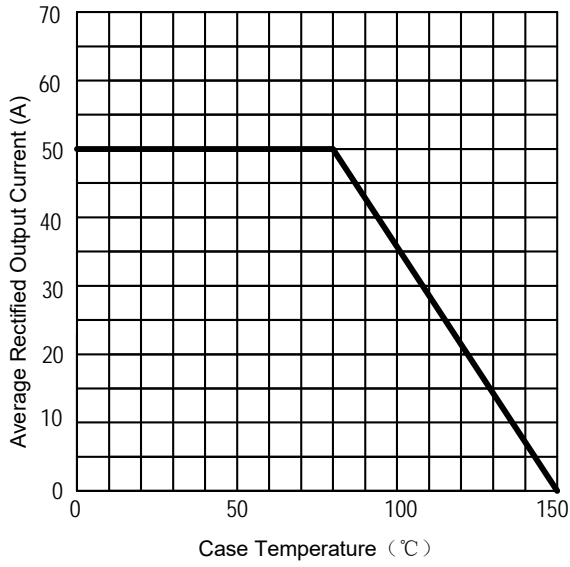


FIG2:Surge Forward Current Capability

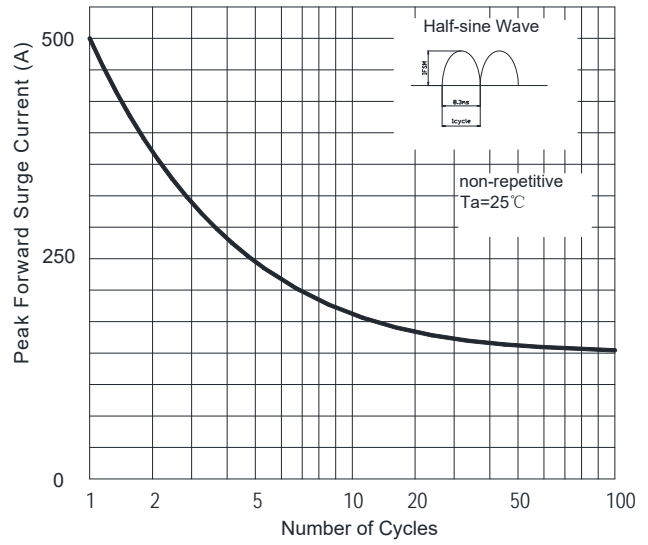


FIG3:Instantaneous Forward Voltage

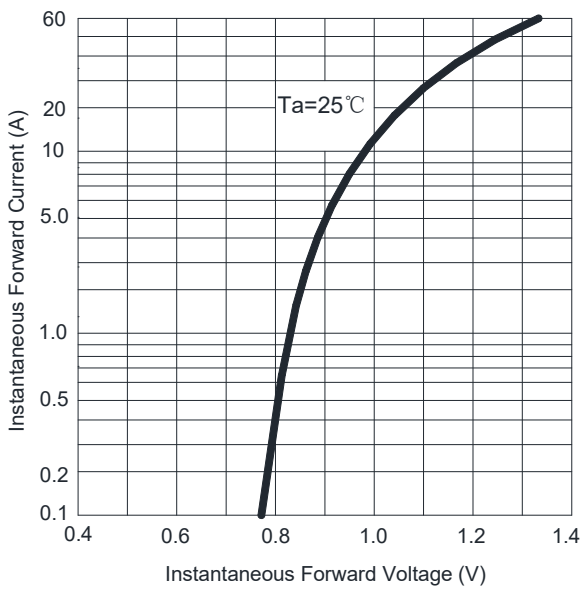
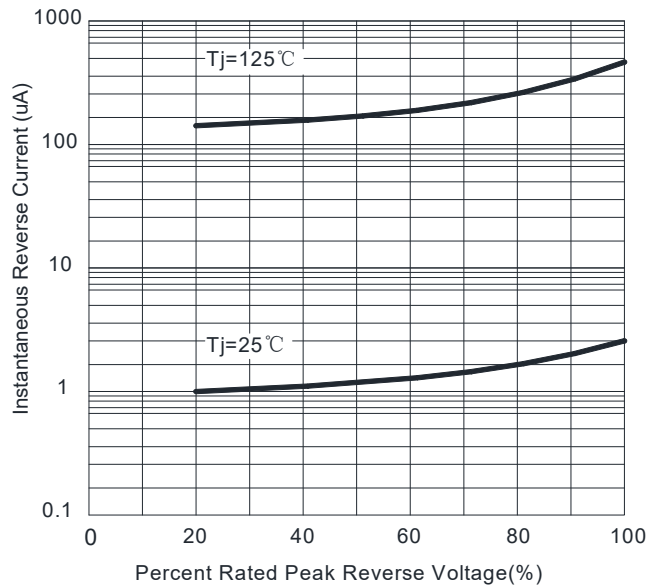


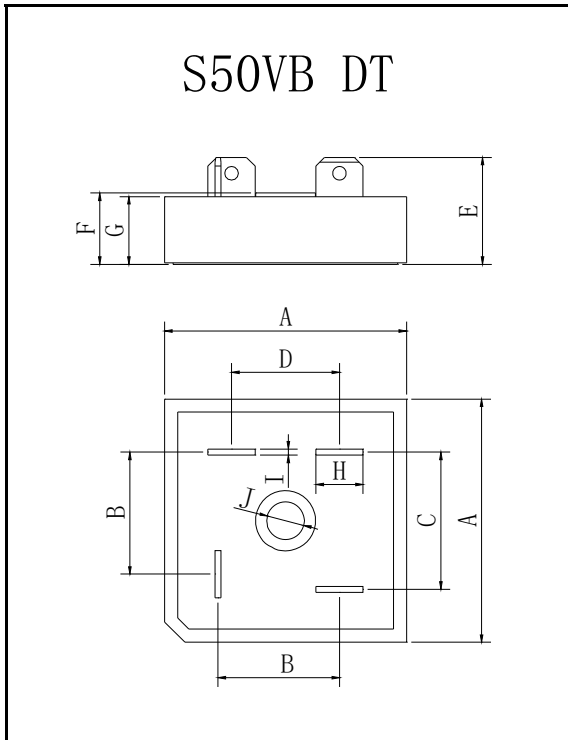
FIG4:Typical Reverse Characteristics





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■ Outline Dimensions



S50VB DT		
Dim	Min	Max
A	32	33
B	15.7	16.7
C	17.7	18.7
D	13.9	14.9
E	13.8	14.8
F	9	10
G	8.5	9.5
H	6.1	6.5
I	0.75	0.85
J	4.9	5.3



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