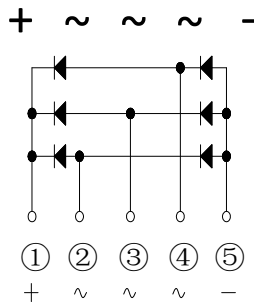


Three Phase Bridge Rectifiers



Features

- UL recognition, file #E230084
- Glass passivated chip junction
- Thin single in-line package
- High surge current capability
- Solder dip 275 °C max. 7 s, per JESD 22-B106

Typical Applications

General purpose use in AC/DC bridge full wave rectification for switching power supply, home appliances, office equipment, industrial automation applications.

Mechanical Data

- **Package:** TSB-5
Molding compound meets UL 94 V-0 flammability rating, -
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked on body

■Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	DF50NA80	DF50NA100	DF50NA120	DF50NA160
Device marking code			DF50NA80	DF50NA100	DF50NA120	DF50NA160
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 @8.3ms,sine wave, R-load, With heatsink,Tc=85°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	1037.5			
Dielectric strength @terminals to case, AC 1 minute	Vdis	KV	2.5			
Mounting torque @recommend torque: 5kg·cm	Tor	kg·cm	8			
Storage Temperature	Tstg	°C	-55 ~ +150			
Junction Temperature	Tj	°C	-55 ~ +150			

DF50NA80 THRU DF50NA160

■Electrical Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	DF50NA80	DF50NA100	DF50NA120	DF50NA160
Maximum instantaneous forward voltage drop per diode	V _F	V	I _{FM} =25.0A	1.1			
Maximum DC reverse current at rated DC blocking voltage per diode	I _R	μA	T _j =25°C	5			
			T _j =125°C	500			
Typical junction capacitance	C _j	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	230		240	

■Thermal Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	DF50NA80	DF50NA100	DF50NA120	DF50NA160
Thermal Resistance Between junction and case, With heatsink	R _{θJ-C}	°C/W	0.7			

Note: Device mounted on 75mm x 45mm x 5.5mm Aluminum Plate Heatsink.

■Ordering Information (Example)

PREFERED P/N	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
DF50NA80 ~ DF50NA160	Approximate 15.8	96	96	576	Paper Box

■ Characteristics(Typical)

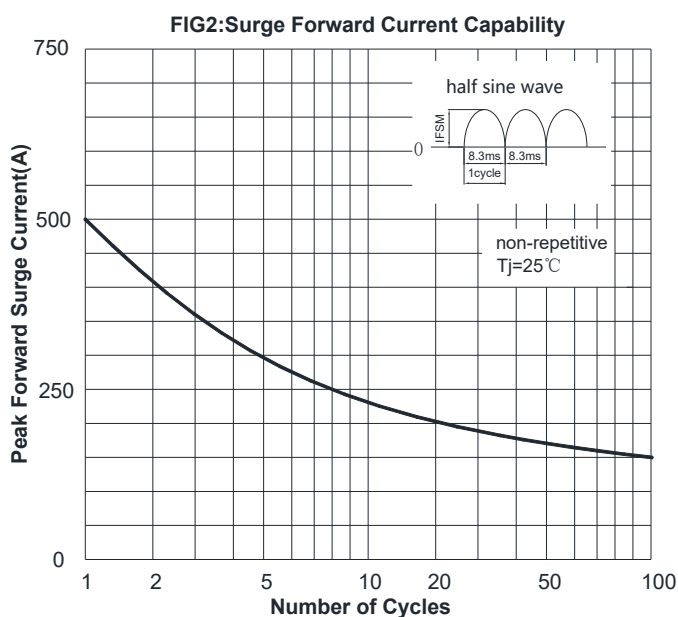
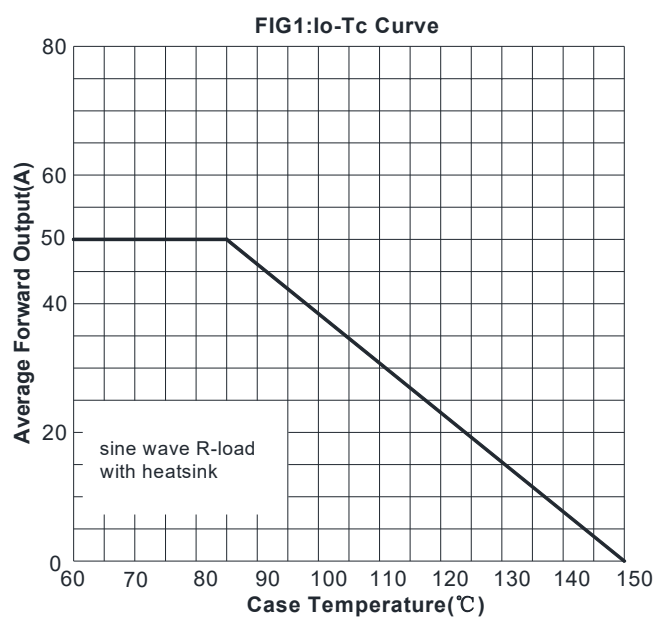


FIG3: Typical Forward Voltage

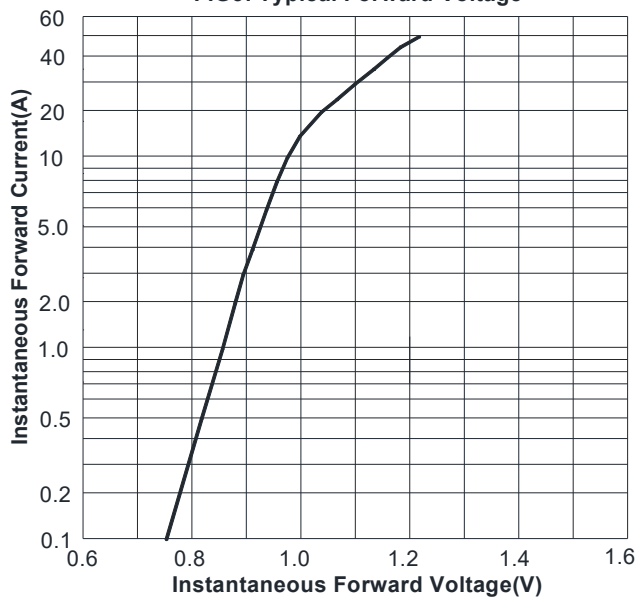
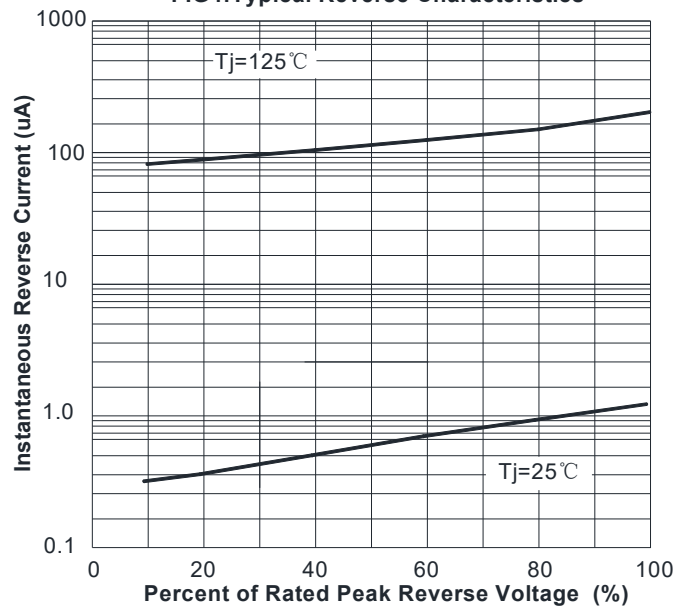
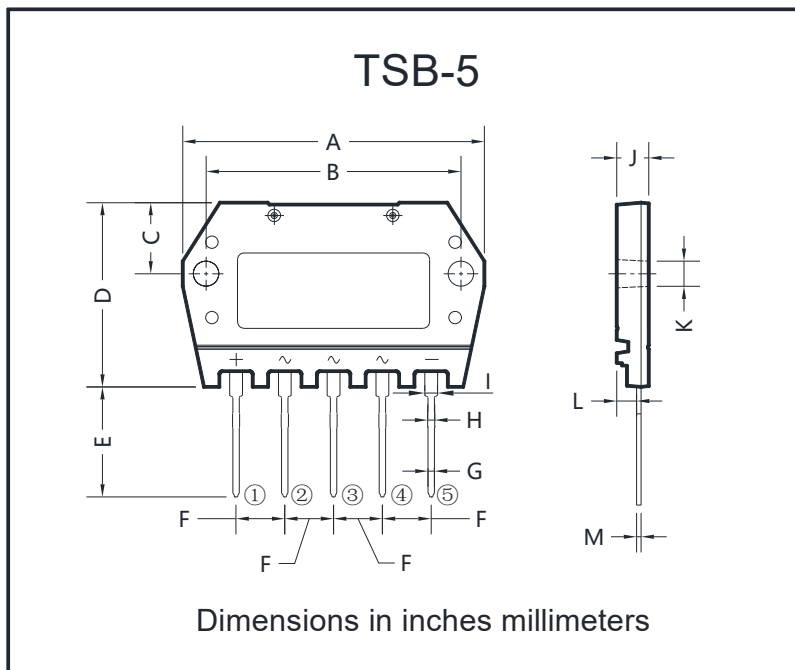


FIG4: Typical Reverse Characteristics



■ Outline Dimensions



TSB-5		
Dim	Min	Max
A	46.6	47.6
B	39.5	40.1
C	11.0	11.6
D	28.8	29.8
E	17.2	17.8
F	7.52	7.72
G	0.90	1.10
H	1.00	1.20
I	1.90	2.10
J	4.70	5.30
K	4.00	4.50
L	3.00	3.20
M	0.60	0.80

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