

Three Phase Bridge Rectifiers

Features

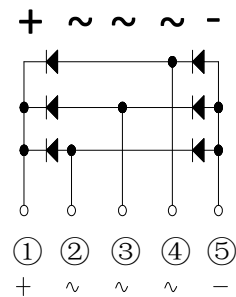
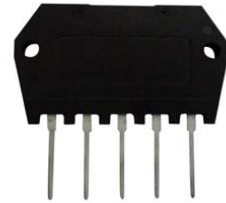
- UL recognition, file #E230084
- I Thin single in-line package
- High surge current capability
- Solder dip 275 °C max. 7 s, per JESD 22-B106

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, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked on body



■Maximum Ratings ($T_a=25^{\circ}\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	DF25NA80	DF25NA100	DF25NA160
Device marking code			DF25NA80	DF25NA100	DF25NA160
Repetitive Peak Reverse Voltage	VRRM	V	800	1000	1600
Average Rectified Output Current @60Hz sine wave, R-load, With heatsink $T_c=110^{\circ}\text{C}$	I_O	A	25		
Surge(Non-repetitive)Forward Current @60HZ half-sine wave, 1 cycle, $T_j=25^{\circ}\text{C}$	IFSM	A	400		
Current Squared Time @1ms≤t<8.3ms $T_j=25^{\circ}\text{C}$, Rating of per diode	I^2t	A ² S	666		
Storage Temperature	Tstg	°C	-55 ~+150		
Junction Temperature	T_j	°C	-55 ~+150		

■Electrical Characteristics ($T_a=25^{\circ}\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	DF25NA80	DF25NA100	DF25NA160
Maximum instantaneous forward voltage drop per diode	V_F	V	$I_{FM}=12.5\text{A}$	1.1		
Maximum DC reverse current at rated DC blocking voltage per diode	I_{RRM}	μA	$V_{RM}=V_{RRM}$	10		

■ **Thermal Characteristics** ($T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	DF25NA80	DF25NA100	DF25NA160
Thermal Resistance	Between junction and case, With heatsink	$R_{\theta J-C}$	$^\circ\text{C}/\text{W}$	3.4		

■ **Ordering Information (Example)**

PREFERED P/N	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
DF25NA80~DF25NA160	Approximate 15.8	96	96	576	Paper Box

■ **Characteristics(Typical)**

FIG1:Io-Tc Curve

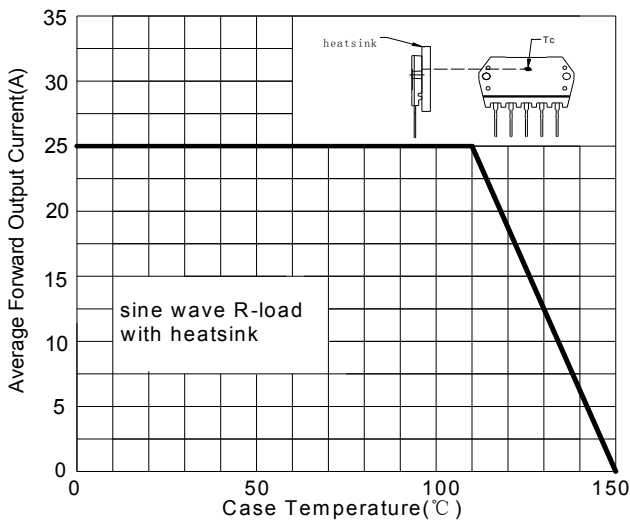


FIG2:Surge Forward Current Capability

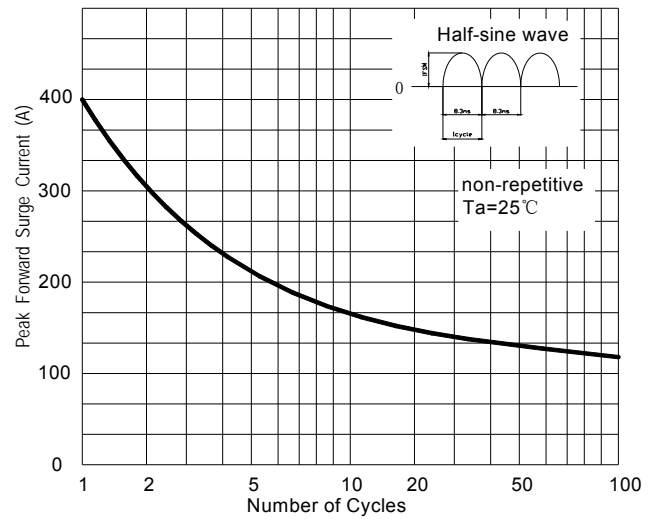


FIG3:Instantaneous Forward Voltage

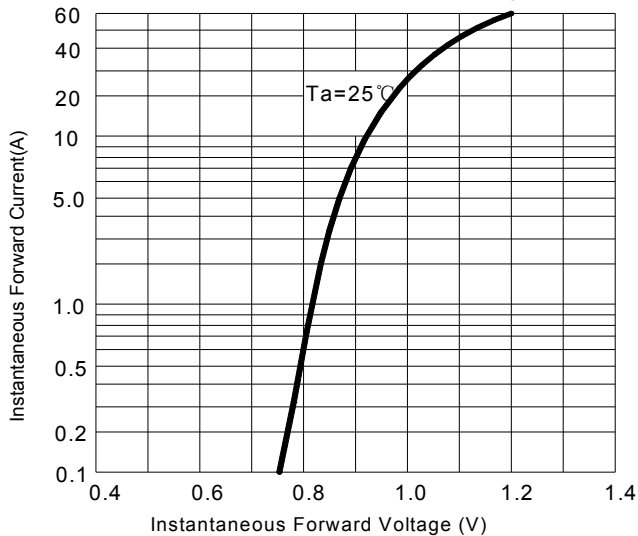
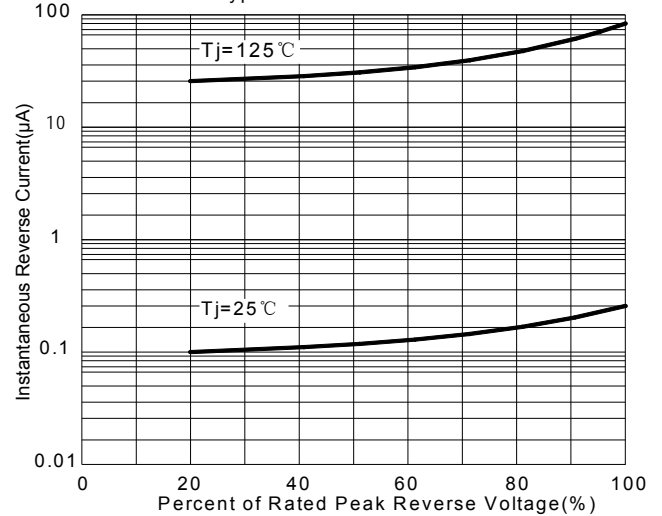
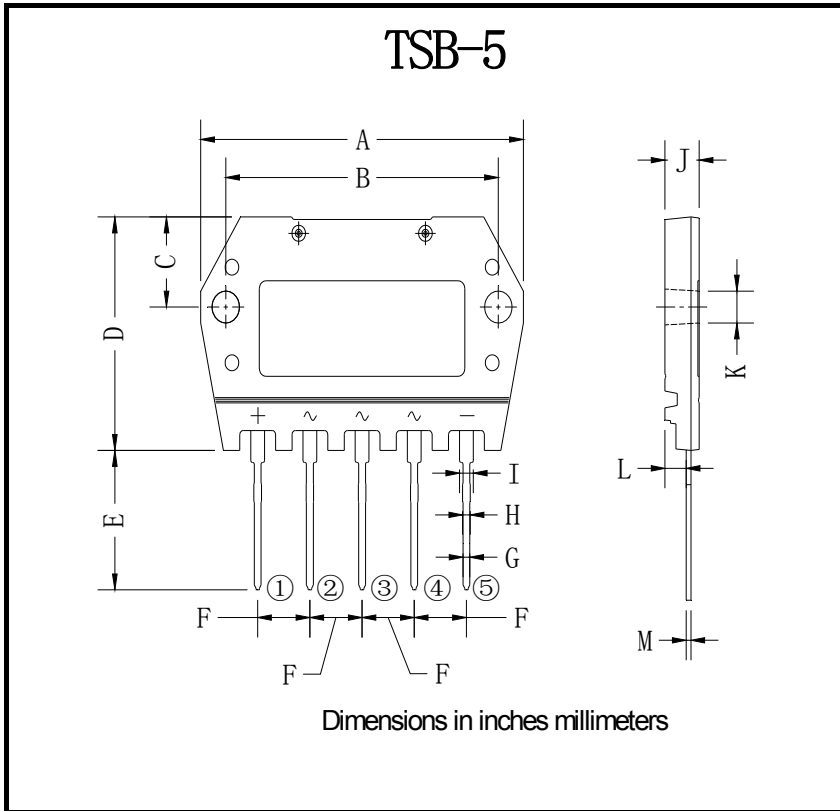


FIG4:Typical Reverse Characteristics



■ **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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