

Three Phase Bridge Rectifiers

Features

- UL recognition, file #E230084
- Thin single in-line package
- Glass passivated chip junction
- 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 Server、Frequency converter、Industrial power supply.

Mechanical Data

- **Package:** 3GBJ
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°C Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	DG50NA140	DG50NA160
Device marking code				DG50NA140	DG50NA160
Maximum Repetitive Peak Reverse Voltage		VRRM	V	1400	1600
Maximum RMS Voltage		VRMS	V	980	1120
Maximum DC blocking Voltage		VDC	V	1400	1600
Average rectified output current @60Hz sine wave, R-load	With heatsink Tc =95°C	IO	A	50.0	
	Without heatsink Ta =25°C			4.5	
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	
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	



DG50NA140 THRU DG50NA160

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	DG50NA140	DG50NA160
Maximum instantaneous forward voltage drop per diode	V _F	V	I _{FM} =25A	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	200	

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

PARAMETER		SYMBOL	UNIT	DG50NA140	DG50NA160
Typical Thermal Resistance	Between junction and ambient, Without heatsink	R _{θJ-A}	°C/W	18.0	
	Between junction and case, With heatsink	R _{θJ-C}		0.5	

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

■Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
DG50NA140 ~ DG50NA160	A1	Approximate 10	100	100	1000	BOX
DG50NA140 ~ DG50NA160	B1	Approximate 10	10	/	1000	TUBE

■ Characteristics (Typical)

FIG1:I_o-T_c Curve

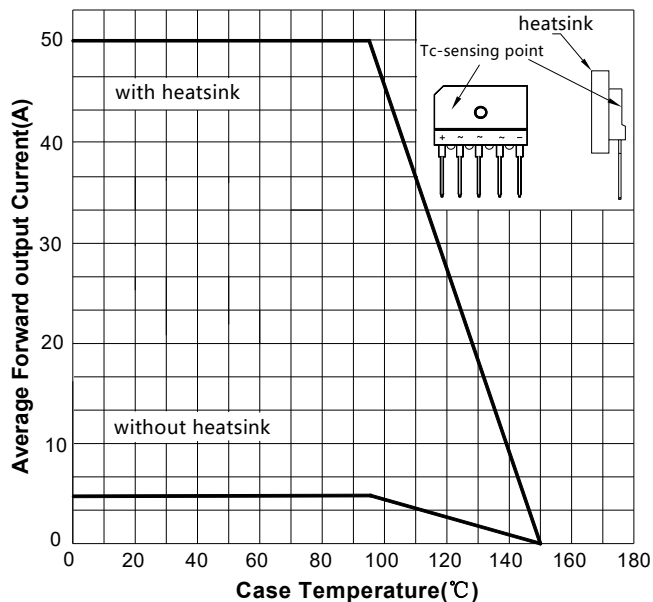
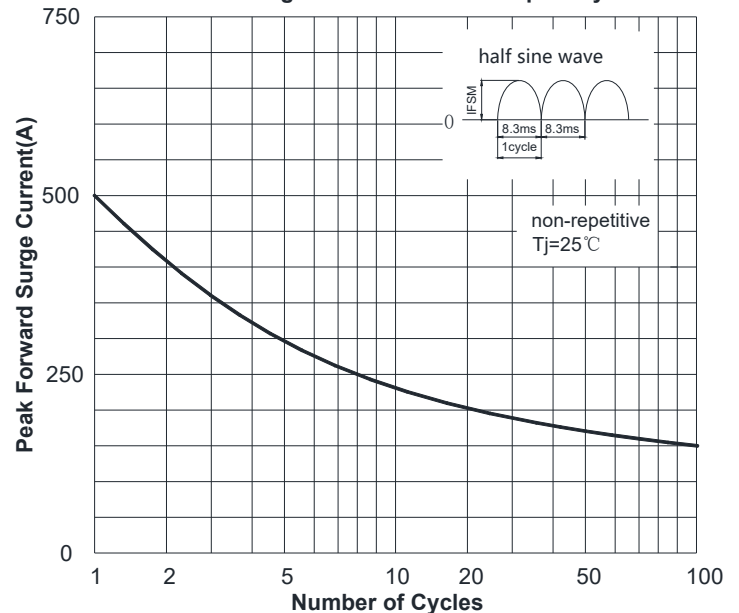


FIG2:Surge Forward Current Capability





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FIG3: Typical Forward Voltage

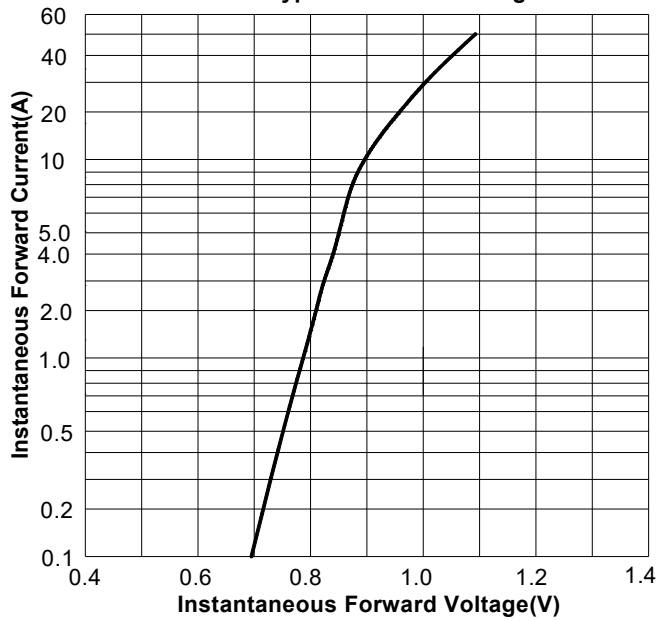
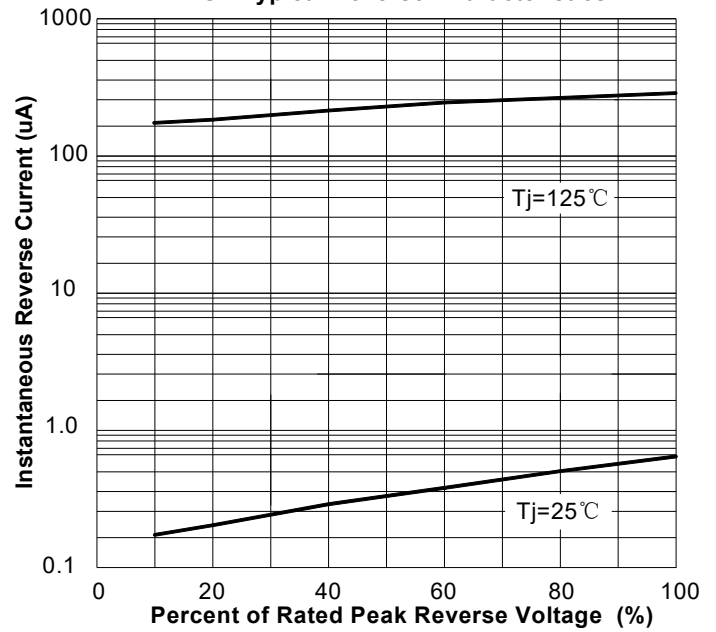
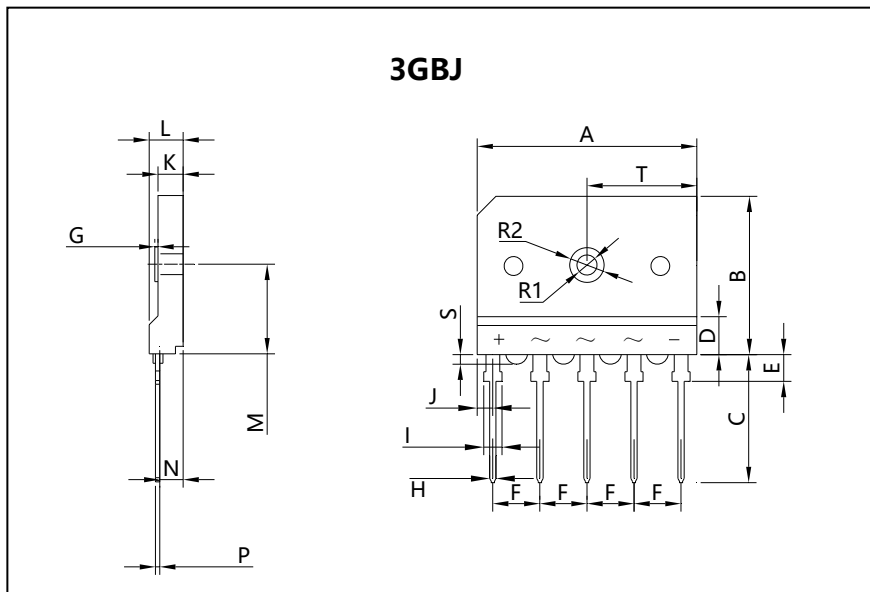


FIG4: Typical Reverse Characteristics



■ Outline Dimensions



3GBJ		
Dim	Min	Max
A	34.7	35.3
B	24.7	25.3
C	19.5	20.1
D	5.1	5.6
E	3.9	4.5
F	7.2	7.8
G	0.4	0.6
H	0.9	1.1
I	2.0	2.4
J	2.2	2.6
K	3.8	4.2
L	5.2	5.6
M	13.9	14.5
N	3.5	3.9
P	0.60	0.80
R1	2.7	3.7
R2	5.3	6.3
S	1.3	1.9
T	17.2	17.8



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