

Pb Free Plating Product

GBA50LP/GBA50LN



50 Ampere Avalanche Type Block Rectifier Diodes for Mitsubishi Alternator

**Feature:**

- ◆ Low leakage
- ◆ Low forward voltage drop
- ◆ High current capability
- ◆ High forward surge current capability

**Application:**

- ◆ Block Diode/Alternator Diode with AEC-Q101 Grade Quality
- ◆ Stack Silicon Diffused Diode alternative
- ◆ Special for Automotive AC Alternator rectifier application

**Mechanical Data:**

- ◆ Technology: Latest Glass Passivation Pellet/Cu Clip Bonding
- ◆ Case: Vacuum soldered/Sintered temperature < 260
- ◆ Cathode Polarity: As marked on body
- ◆ Lead: Plated lead, solderable per MIL-STD-202E method 208C
- ◆ Mounting: BLOCK/TO-230/BA/MR/K series package type

BLOCK/TO-230/BA/MR/K series

Case ○  
Lead ○

GBA50LP  
Positive  
Suffix: "P"

Case ○  
Lead ○

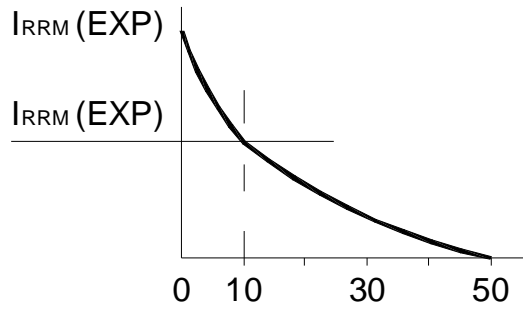
GBA50LN  
Negative  
Suffix: "N"

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

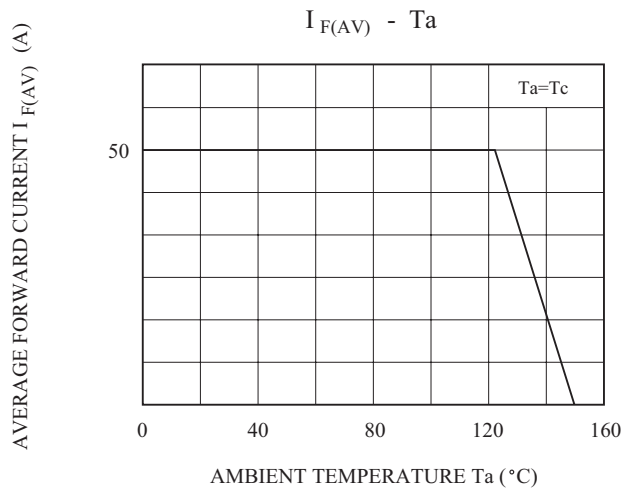
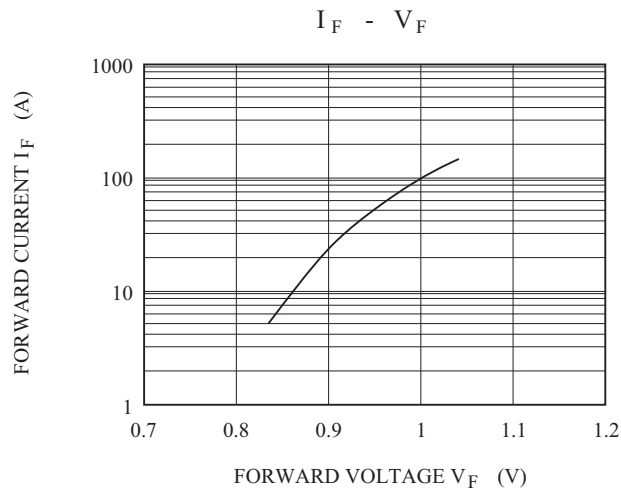
- Ratings at 25°C ambient temperature unless otherwise specified
- Single Phase, half wave, 60Hz, resistive or inductive load
- For capacitive load derate current by 20%

Electrical Characteristics @ 25°C	SYMBOLS	GBA50LP/GBA50LN			UNITS
		MIN	NOMINAL	MAX	
Peak Repetitive Reverse Voltage	$V_{RRM}$		17		Volts
Working Peak Reverse Voltage	$V_{RRM}$		17		
DC Blocking Voltage <span style="color: red;">Transient Peak Reverse Voltage</span>	$V_{DC}$ $V_{RSM}$		17		
Average Rectified Forward Current (Tc=125°C)	$I_o$		50		Amps
Repetitive Peak Reverse Surge Current Tc=10msec Dury Cycle<1%	$I_{RSM}$		50		Amps
Breakdown Voltage (Vbr@ir=100mA, Tc=25°C)	Vbr1 $V_z$	20	22	24	Volts
Ir=90Amps, Tc=150°C, PW=80usec <span style="color: red;">Zener Voltage</span>	Vbr2			32	Volts
Forward Voltage Drop @If=100Amps<300usec	$V_F$		1.05	1.08	Volts
Peak Forward Surge Current	$I_{FSM}$		600		Amps
Reverse Leakage (VR=17Vdc) TA=25°C	$I_R$		1.0	2.0	uAmps
Operating and Storage Junction Temperature Range	$T_J, T_{STG}$		-65 to +175		°C

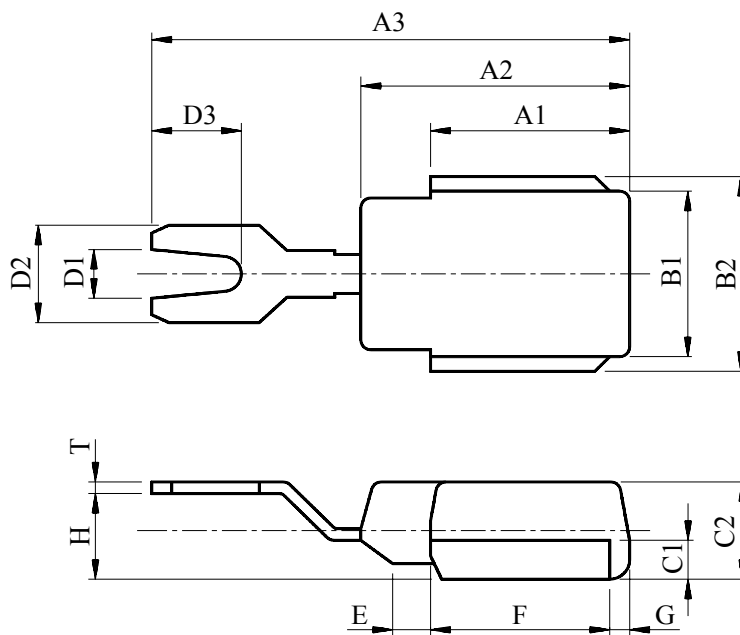
Notes: 1. Enough heatsink must be considered in application.



Surge current characteristics



BLOCK/TO-230/BA/MR/K Series Package Outline



DIM	MILLIMETERS	DIM	MILLIMETERS
A1	10.0±0.3	D2	5.0±0.3
A2	13.5±0.3	D3	4.5±0.3
A3	24.0±0.5	E	1.9±0.3
B1	8.5±0.3	F	9.0±0.3
B2	10.0±0.3	G	1.0±0.3
C1	2.0±0.3	H	4.4±0.5
C2	5.0±0.3	T	0.6±0.3
D1	2.5±0.3		