

Pb Free Plating Product

GBA30ZP/GBA30ZN



30 Ampere Avalanche Type Block Rectifier Diodes for Mitsubishi Alternator

Feature:

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

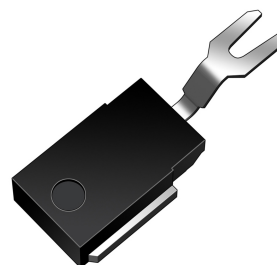
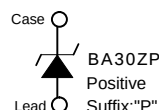
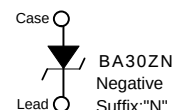
Application:

- ◆ 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°C
- ◆ 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

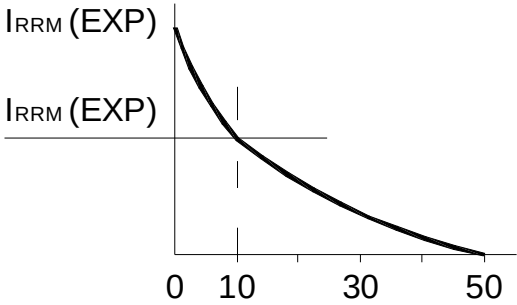


MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

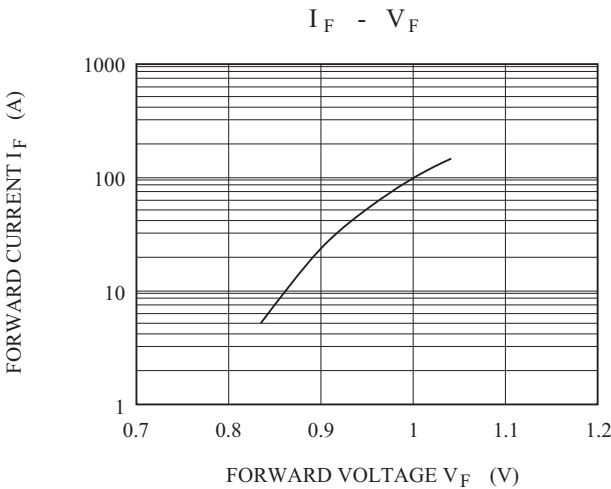
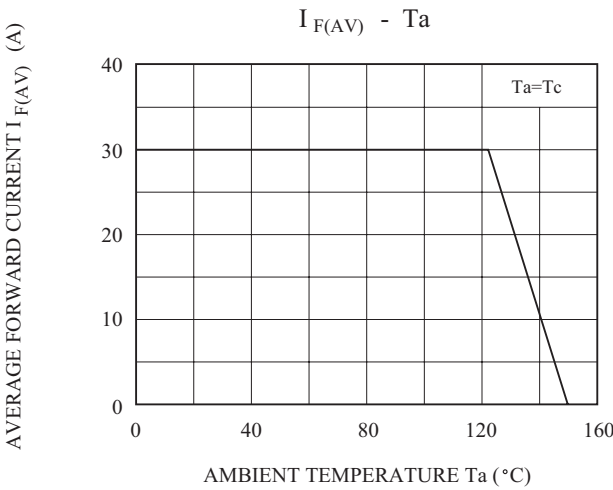
- Ratings at 25°C ambient temperature unless otherwise specified
- Single Phase, half wave, 60Hz, resistive or inductive load
- For capacitive load derate current by 20%

		GBA30ZP/GBA30ZN			
Electrical Characteristics @ 25°C	SYMBOLS	MIN	NOMINAL	MAX	UNITS
Peak Repetitive Reverse Voltage	V_{RRM}		20		Volts
Working Peak Reverse Voltage	V_{RRM}		20		
DC Blocking Voltage Transient Peak Reverse Voltage	V_{DC} V_{RSM}		20		
Average Rectified Forward Current ($T_c=125^\circ\text{C}$)	I_o		30		Amps
Repetitive Peak Reverse Surge Current $T_c=10\text{msec}$ Duty Cycle<1%	I_{RSM}		30		Amps
Breakdown Voltage ($V_{br}@I_r=100\text{mA}$, $T_c=25^\circ\text{C}$)	V_{br1} V_z	24	25-27	32	Volts
$I_r=90\text{Amps}$, $T_c=150^\circ\text{C}$, $PW=80\text{usec}$ Zener Voltage	V_{br2}			40	Volts
Forward Voltage Drop @ $I_f=100\text{Amps}$ <300usec	V_F		1.05	1.10	Volts
Peak Forward Surge Current	I_{FSM}		400		Amps
Reverse Leakage ($V_R=17\text{Vdc}$) $T_A=25^\circ\text{C}$	I_R		1.0	2.0	uAmps
Operating and Storage Junction Temperature Range	T_J, T_{STG}		-65 to +175		°C

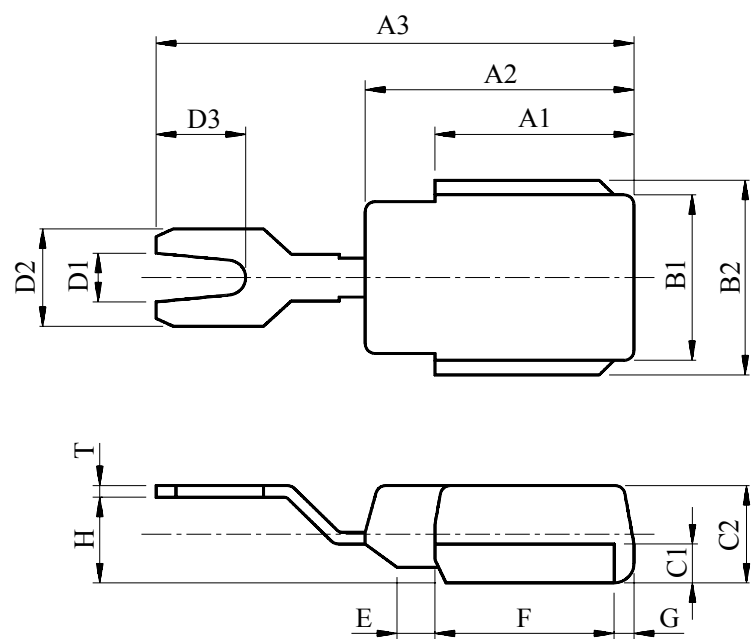
Notes: 1. Enough heatsink must be considered in application.



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		