

Pb Free Plating Product

GB352N/GB353N/GB354N/GB355N/GB356N



35 Ampere Standard Type Negative Block Rectifier Diodes for Automotive Alternators

Feature:

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

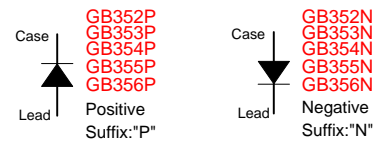
Application:

- ◆ 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



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%

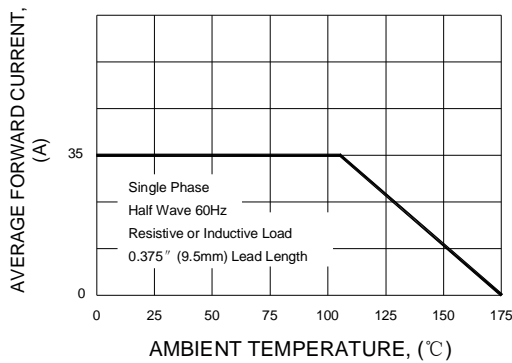
| | SYMBOLS | GB352N | GB353N | GB354N | GB355N | GB356N | UNIT |
|--|-----------------|---------------|--------|--------|--------|--------|--------------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 200 | 300 | 400 | 500 | 600 | Volts |
| Maximum RMS Voltage | V_{RMS} | 140 | 210 | 280 | 350 | 420 | Volts |
| Maximum DC Blocking Voltage | V_{DC} | 200 | 300 | 400 | 500 | 600 | Volts |
| Maximum Average Forward Rectified Current, At $T_c = 105^\circ C$ | I_o | 35 | | | | | Amps |
| Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC method) | I_{FSM} | 450 | | | | | Amps |
| Rating for fusing ($t < 8.3ms$) | I^2t | 664 | | | | | A^2S |
| Maximum Instantaneous Forward Voltage Drop at 100A | V_F | 1.05 | | | | | Volts |
| Maximum DC Reverse Current at Rated $T_A=25^\circ C$ | I_R | 5.0 | | | | | μA |
| DC Blocking Voltage $T_A=100^\circ C$ | | 100 | | | | | |
| Typical Thermal Resistance | $R_{\theta JL}$ | 1.0 | | | | | $^\circ C/W$ |
| Operating and Storage Temperature Rang | T_L, T_{STG} | (-65 to +175) | | | | | $^\circ C$ |

NOTES:

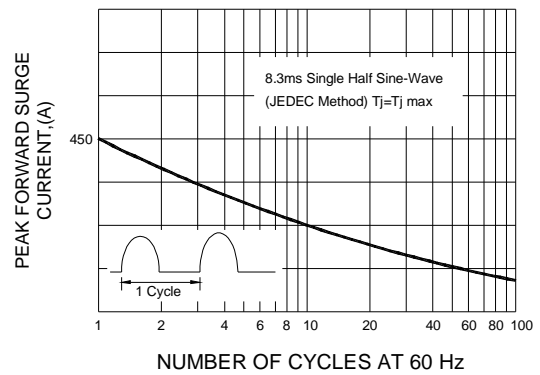
1.Enough heatsink must be considered in application.

RATINGS AND CHARACTERISTIC CURVES GB352N thru GB356N

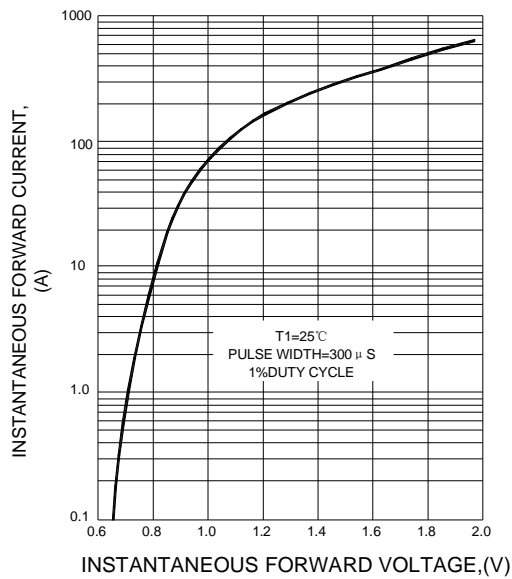
F1G.1 TYPICAL FORWARD CURRENT DERATING CURVE



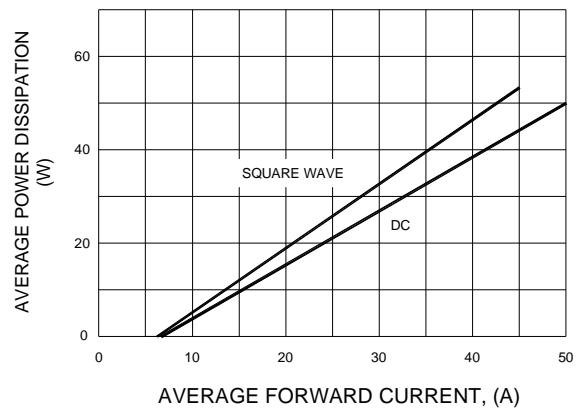
F1G.2 MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



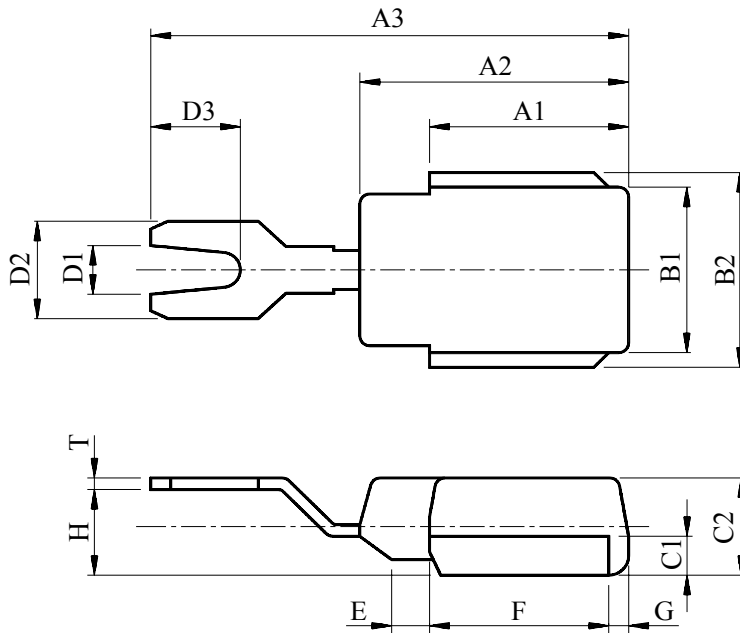
F1G.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



F1G.4 FORWARD POWER DISSIPATION



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 | | |