

Pb Free Plating Product

GB351N thru GB356N



35.0 Ampere Heatsink Block Automotive Rectifier Diodes

Features:

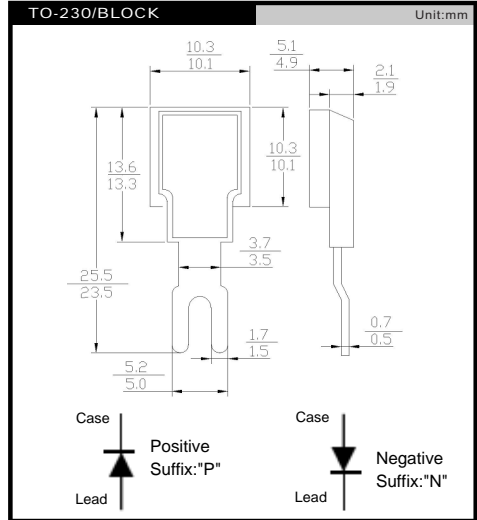
- ◆ Low leakage
- ◆ Low forward voltage drop
- ◆ High current capability
- ◆ High forward surge current capability

Mechanical Data:

- ◆ Technology: Glass Passivation Pellet/Clip Bonding
- ◆ Case: Sintered temperature < 260°C
- ◆ Polarity: As marked on body. (Note2)
- ◆ Lead: Plated lead, solderable per MIL-STD-202E method 208C
- ◆ Mounting: BLOCK/TO-230 package type

Application:

- ◆ Block Diode/Alternator Diode
- ◆ Stack Silicon Diffused Diode alternative
- ◆ Special for Car AC Alternator rectifier application



Maximum Ratings and Electrical Characteristics

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

Parameters	Symbols	GB351N	GB352N	GB353N	GB354N	GB356N	Units
Maximum repetitive peak reverse voltage	V_{RRM}	100	200	300	400	600	Volts
Maximum RMS voltage	V_{RMS}	70	140	210	280	420	Volts
Maximum DC blocking voltage	V_{DC}	100	200	300	400	600	Volts
Maximum Average rectified forward current at $T_C=105^\circ\text{C}$	$I_{(AV)}$	35					Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	500					Amps
Rating for fusing ($t<8.3\text{ms}$)	I^2t	1038					A ² S
Maximum instantaneous forward voltage drop at 100A	V_F	1.10					Volts
Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$	I_R	5.0 450					μA
Typical thermal resistance	$R_{\theta JL}$	0.8					$^\circ\text{C/W}$
Operating and storage temperature range	T_J, T_{STG}	-65 to +175					$^\circ\text{C}$

- Notes:**
1. Enough heatsink must be considered in application.
 2. Suffix "N" is for lead Negative. Suffix "P" is for lead Positive.

■ Ratings and Characteristic Curves

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

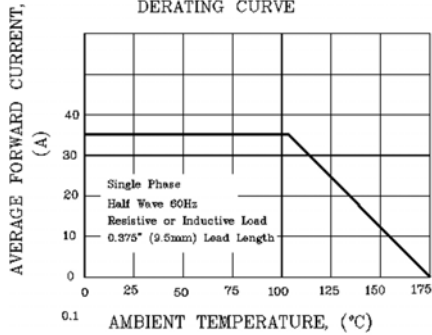


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

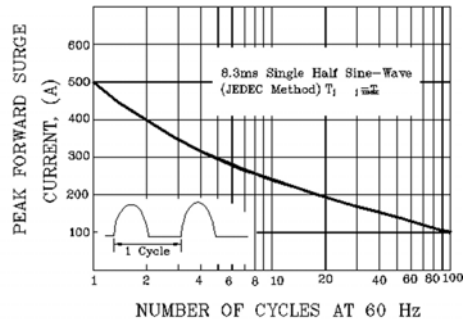


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

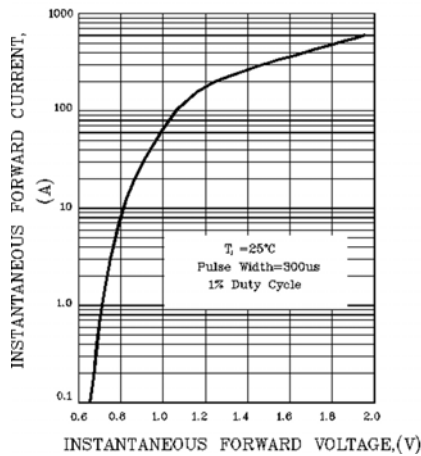


FIG.4- FORWARD POWER DISSIPATION

