

RoHS Compliant Product  
A suffix of "-C" specifies halogen & lead-free

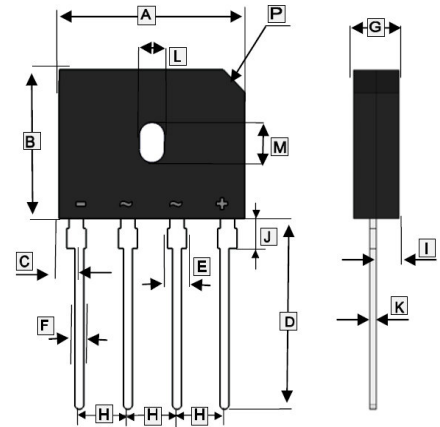
## FEATURES

- $I_o$  : 35A
- $V_{RRM}$  : 50~1000V
- Glass passivated chip
- High surge forward current capability

## APPLICATIONS

- General purpose 1 phase Bridge rectifier applications

GBU



| REF. | Millimeter |      | REF. | Millimeter |      |
|------|------------|------|------|------------|------|
|      | Min.       | Max. |      | Min.       | Max. |
| A    | 21.7       | 22.3 | H    | 4.83       | 5.33 |
| B    | 18.2       | 18.8 | I    | 1.8        | 2.66 |
| C    | 3°45' TYP. |      | J    | 1.8        | 2.54 |
| D    | 17.5       | 18.5 | K    | 0.4        | 0.6  |
| E    | 1.8        | 2.54 | L    | 3.5        | 4.1  |
| F    | 0.9        | 1.27 | M    | 5.7 TYP.   |      |
| G    | 3.3        | 3.8  |      |            |      |

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

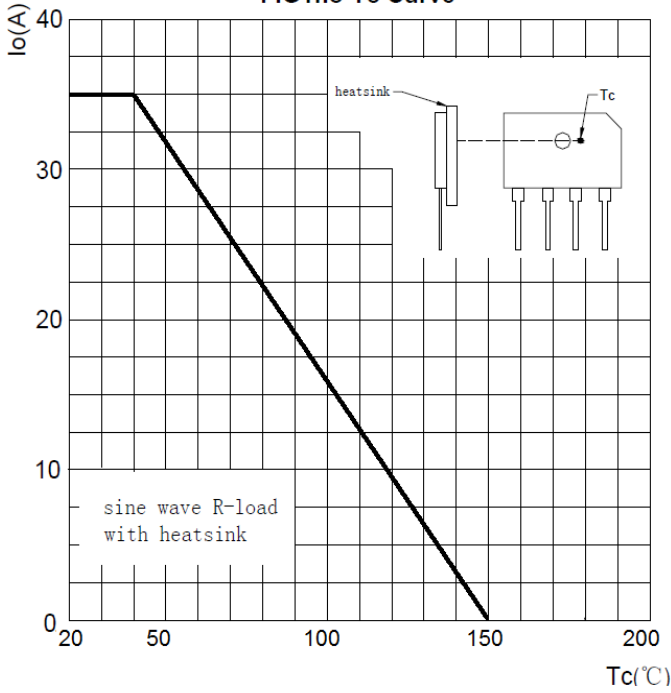
| Parameter   | Symbol                                     | Part Number |          |          |          |          |          |          | Unit                        |
|---|--|-------------|----------|----------|----------|----------|----------|----------|-----------------------------|
|   |  | GBU 35005   | GBU 3501 | GBU 3502 | GBU 3504 | GBU 3506 | GBU 3508 | GBU 3510 |                             |
| Maximum Recurrent Peak Reverse Voltage  | $V_{RRM}$                                  | 50          | 100      | 200      | 400      | 600      | 800      | 1000     | V                           |
| Average Rectified Output Current @ 60Hz sine wave, R-load                               | With heatsink<br>$T_C=40^\circ\text{C}$    | 35          |          |          |          |          |          |          | A                           |
|   | Without heatsink<br>$T_A=25^\circ\text{C}$ | 3.5         |          |          |          |          |          |          |                             |
| Surge (Nonrepetitive) Forward Current @ 60Hz sine wave, 1 cycle, $T_J=25^\circ\text{C}$ | $I_{FSM}$                                  | 400         |          |          |          |          |          |          | A                           |
| Current Squared Time <sup>1</sup>   | $I^2t$                                     | 650         |          |          |          |          |          |          | A <sup>2</sup> S            |
| Dielectric Strength @ Terminals to case , AC 1 minute                                   | $V_{DIS}$                                  | 2.5         |          |          |          |          |          |          | KV                          |
| Mounting Torque @ Recommend torque : 5kg.cm   | Tor  | 8           |          |          |          |          |          |          | Kg.cm                       |
| Peak Forward Voltage @ $I_{FM}=17.5\text{A}$ , Pulse measurement, Rating of per diode   | $V_{FM}$                                   | 1.1         |          |          |          |          |          |          | V                           |
| Peak Reverse Current @ $V_{RM}=V_{RRM}$ , Pulse measurement, Rating of per diode        | $I_{RRM}$                                  | 10          |          |          |          |          |          |          | $\mu\text{A}$               |
| Thermal Resistance  | Without heatsink                           | 23          |          |          |          |          |          |          | $^\circ\text{C} / \text{W}$ |
|   | With heatsink                              | 5.5         |          |          |          |          |          |          |                             |
| Junction and Storage temperature range  | $T_J, T_{STG}$                             | -55~+150    |          |          |          |          |          |          | $^\circ\text{C}$            |

Notes :

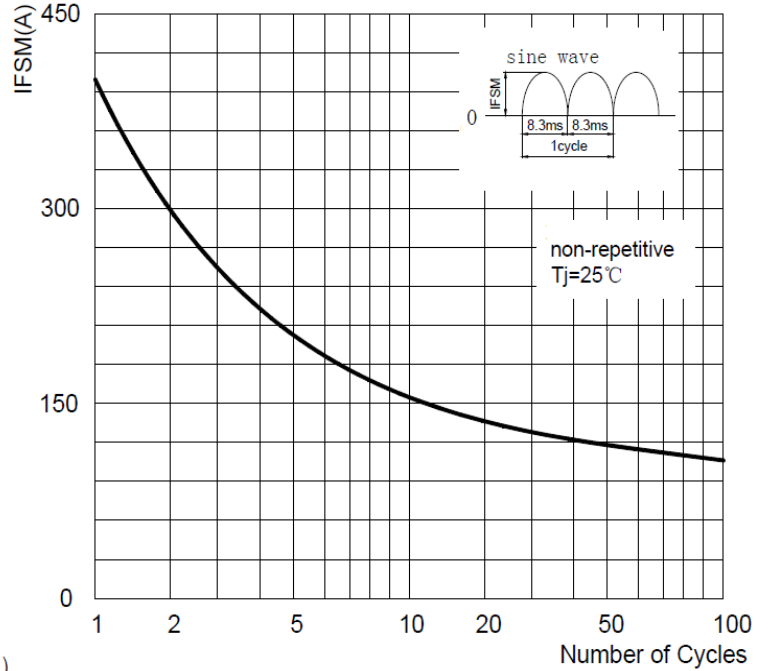
1.  $1\text{ms} \leq t < 8.3\text{ms}$   $T_J=25^\circ\text{C}$  , Rating of per diode

**RATINGS AND CHARACTERISTIC CURVES**

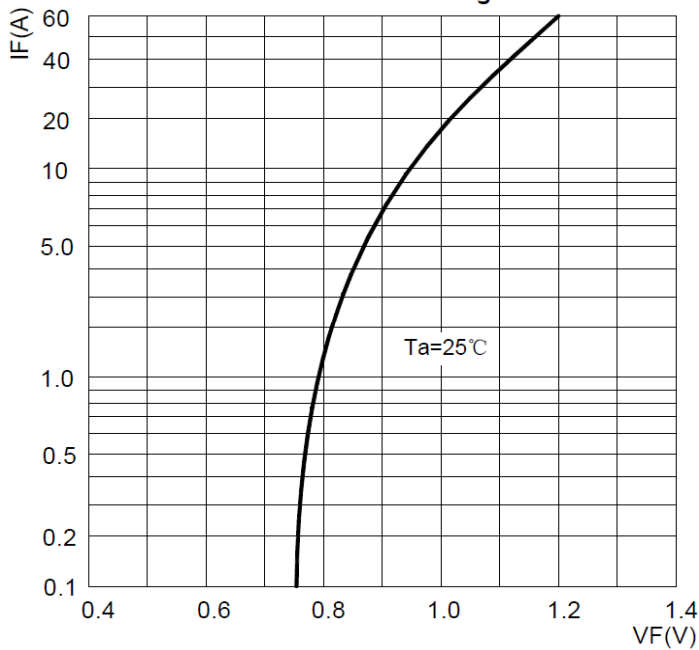
**FIG1:  $I_o$ - $T_c$  Curve**



**FIG2: Surge Forward Current Capability**



**FIG3: Forward Voltage**



**FIG4: Typical Reverse Characteristics**

