

## GEMBR2070CT~20150CT

### SCHOTTKY BARRIER RECTIFIERS

#### REVERSE VOLTAGE 70V TO 150V, CURRENT 20A

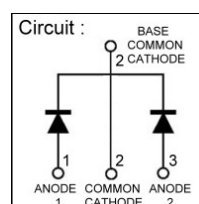
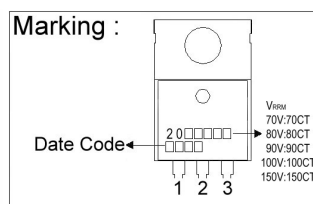
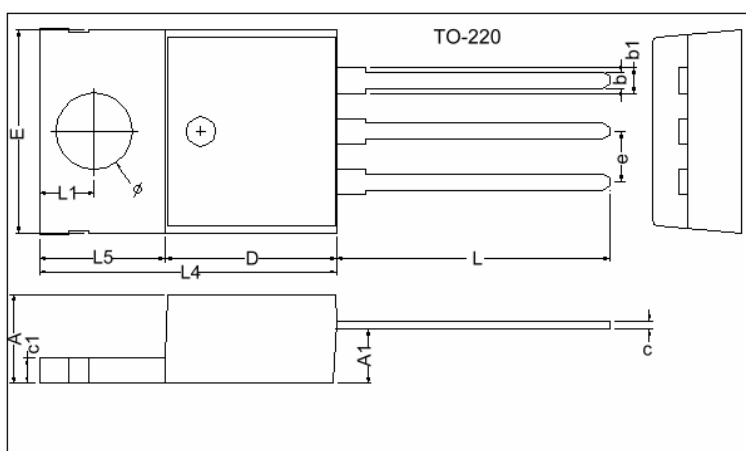
### Description

The GEMBR2070CT~20150CT are designed for use in low voltage, high frequency inverters, free wheeling and polarity protection applications.

### Features

- Guard ring for transient protection
- Low power loss, high efficiency
- High current capability, low VF
- High surge capacity

### Package Dimensions



| REF. | Millimeter |      | REF. | Millimeter |       |
|------|------------|------|------|------------|-------|
|      | Min.       | Max. |      | Min.       | Max.  |
| A    | 4.40       | 4.80 | c1   | 1.25       | 1.45  |
| b    | 0.76       | 1.00 | b1   | 1.17       | 1.47  |
| c    | 0.36       | 0.50 | L    | 13.25      | 14.25 |
| D    | 8.60       | 9.00 | e    | 2.54 REF.  |       |
| E    | 9.80       | 10.4 | L1   | 2.60       | 2.89  |
| L4   | 14.7       | 15.3 | Ø    | 3.71       | 3.96  |
| L5   | 6.20       | 6.60 | A1   | 2.60       | 2.80  |

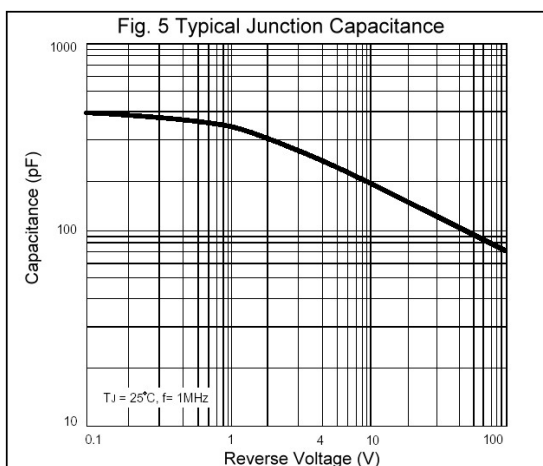
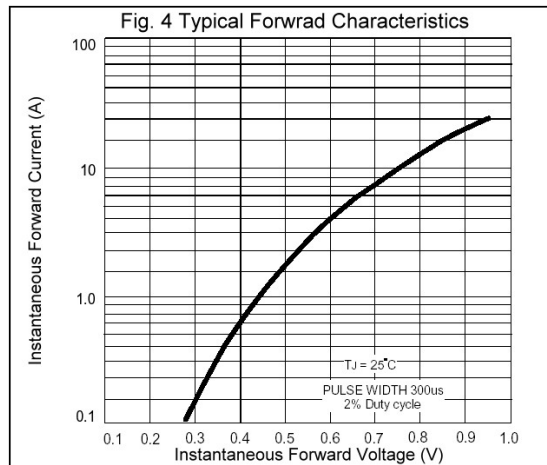
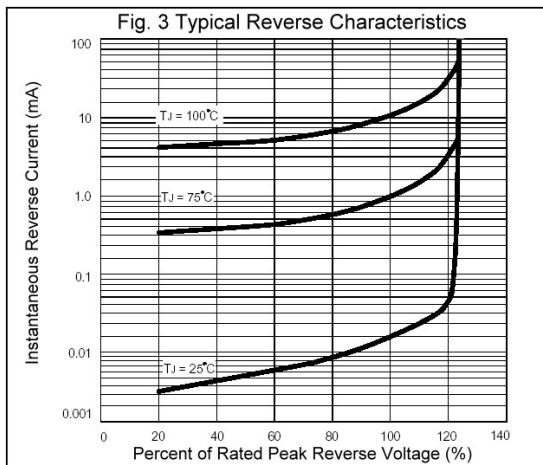
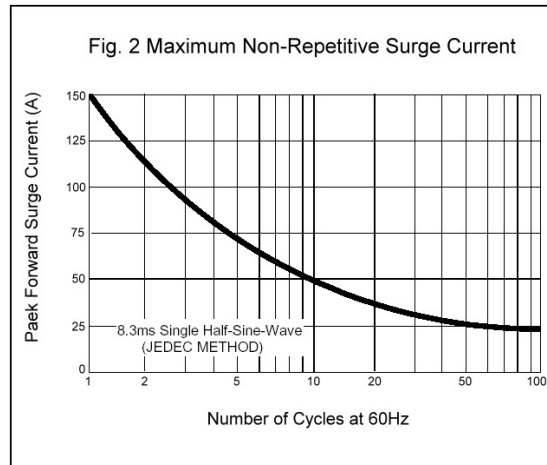
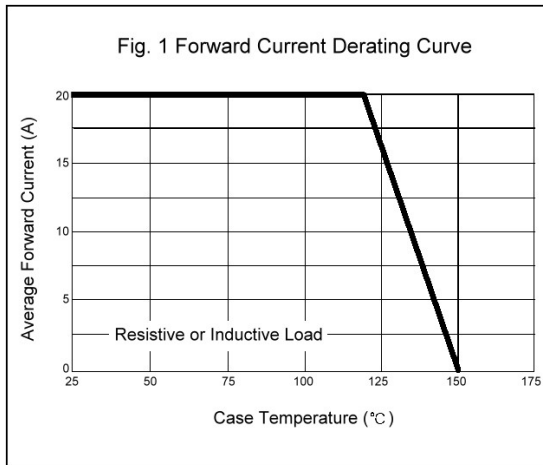
### Maximum Ratings and Electrical Characteristics at Ta=25°C unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%

| Parameters  | Symbol          | Ratings      |              |              |              |              | Unit         |
|---|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|
|   |                 | GEMBR 2070CT | GEMBR 2080CT | GEMBR 2090CT | GEMBR 2100CT | GEMBR 2150CT |              |
| Max. Recurrent Peak Reverse Voltage   | $V_{RRM}$       | 70           | 80           | 90           | 100          | 150          | V            |
| Max. RMS Voltage  | $V_{RMS}$       | 49           | 56           | 63           | 70           | 135          | V            |
| Max. DC Blocking Voltage  | $V_{DC}$        | 70           | 80           | 90           | 100          | 150          | V            |
| Max. Average Forward Rectified Current (See Fig.1) @ $T_C=120^\circ C$                              | $I_{(AV)}$      | 20           |              |              |              |              | A            |
| Peak Surge Forward Current<br>8.3ms single half sine-wave superimposed on rated load (JEDEC METHOD) | $I_{FSM}$       | 150          |              |              |              |              | A            |
| Voltage Rate of Charge (Rated VR)   | dv/dt           | 10000        |              |              |              |              | V/us         |
| Max. Forward Voltage (Note 1)   | $V_F$           | 0.75<br>0.85 |              |              | 0.75<br>0.92 |              | V            |
|   |                 | 0.85<br>0.95 |              |              | 0.86<br>1.00 |              |              |
| Max. DC Reverse Current At Rated DC Blocking Voltage @ $T_J=125^\circ C$                            | $I_R$           | 0.1<br>100   |              |              |              |              | mA           |
| Typical Thermal Resistance (Note 2)   | $R_{\theta JC}$ | 2.0          |              |              |              |              | $^\circ C/W$ |
| Operating Temperature Range   | $T_j$           | -55 ~ +150   |              |              |              |              | $^\circ C$   |
| Storage Temperature Range   | $T_{stg}$       | -55 ~ +175   |              |              |              |              | $^\circ C$   |

Notes: 1. 300us Pulse Width, 2% Duty Cycle.  
2. Thermal Resistance Junction to Case.

## Characteristics Curve



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**Head Office And Factory:**

- **Taiwan:** No. 17-1 Tatung Rd. Fu Kou Hsin-Chu Industrial Park, Hsin-Chu, Taiwan, R. O. C.
- TEL : 886-3-597-7061 FAX : 886-3-597-9220, 597-0785
- **China:** (201203) No.255, Jang-Jiang Tsai-Lueng RD. , Pu-Dung-Hsin District, Shang-Hai City, China
- TEL : 86-21-5895-7671 ~ 4 FAX : 86-21-38950165