

GEMBR2070CT~20150CT

SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE 70V TO 150V, CURRENT 20A

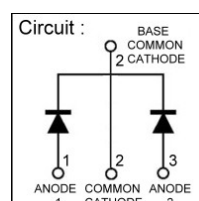
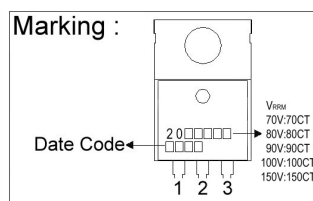
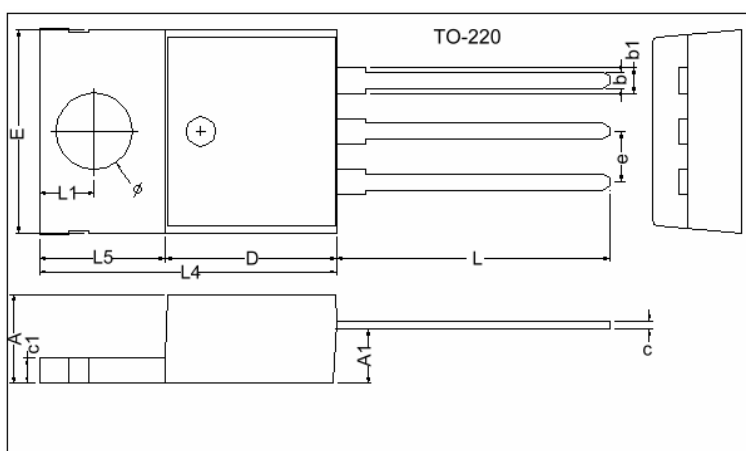
Description

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 V_F
- 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 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	$I_F=10A$ @ $T_J=125^{\circ}C$ 0.75 $I_F=10A$ @ $T_J=25^{\circ}C$ 0.85 $I_F=20A$ @ $T_J=125^{\circ}C$ 0.85 $I_F=20A$ @ $T_J=25^{\circ}C$ 0.95				0.75 0.92 0.86 1.00	V
Max. DC Reverse Current At Rated DC Blocking Voltage	I_R	@ $T_J=25^{\circ}C$ 0.1 @ $T_J=125^{\circ}C$ 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

Fig. 1 Forward Current Derating Curve

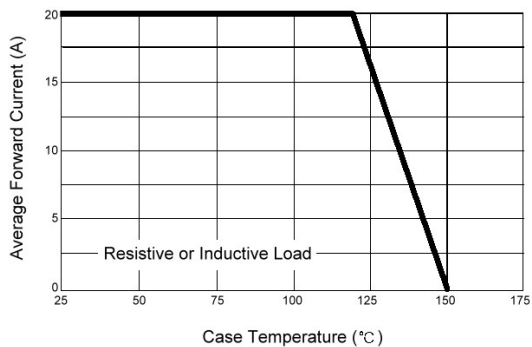


Fig. 2 Maximum Non-Repetitive Surge Current

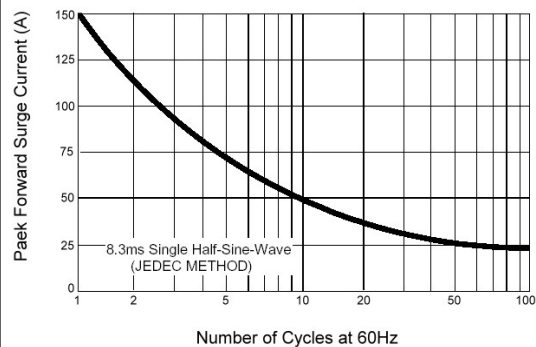


Fig. 3 Typical Reverse Characteristics

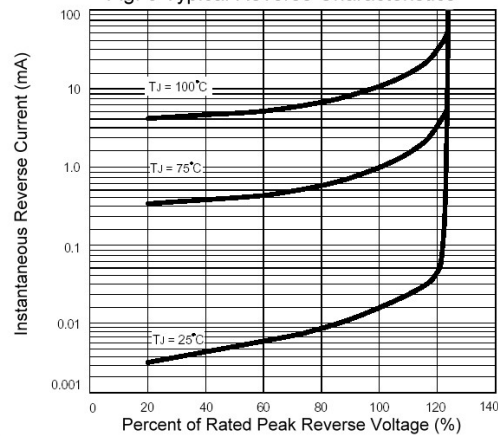


Fig. 4 Typical Forward Characteristics

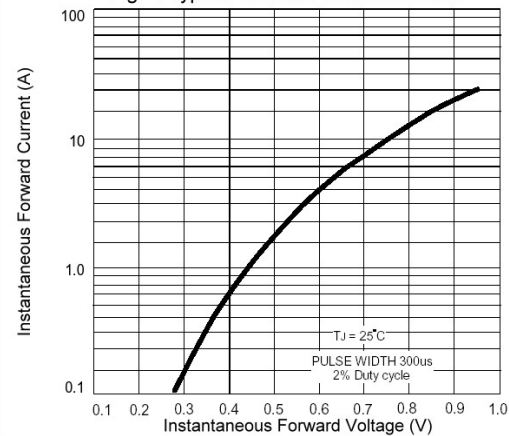
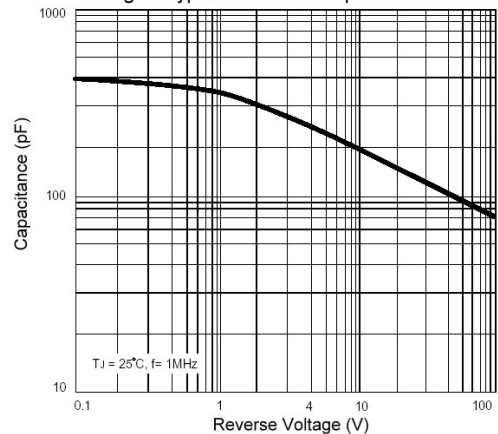


Fig. 5 Typical Junction Capacitance



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