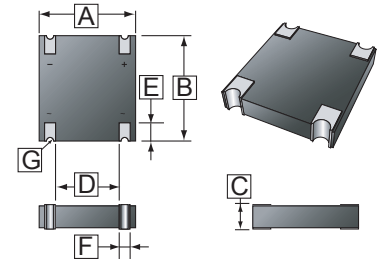


RoHS compliant product
A suffix of "-C" specifies halogen & lead-free

Case: MBCR

FEATURES

- Halogen-free type
- Internal structure with GPRC (Glass Passivated Rectifier Chip) inside
- Lead free product, compliance to RoHS
- Lead less chip form, no lead damage
- Lead-free solder joint, no wire bond & lead frame
- Low power loss, high efficiency
- High current capability
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0



APPLICATION

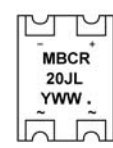
- AC/DC Power Supply
- Communication Equipment

REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	5.20	5.40	E	1.00	1.20
B	5.70	5.90	F	0.85	0.95
C	1.10	1.30	G	R 0.2 REF.	
D	3.25	3.35			

MECHANICAL DATA

- Case : Packed with FRP substrate and epoxy under-filled
- Terminals : Pure Tin plated (Lead-Free), solderable per MIL-STD-750, Method 2026
- Polarity: Laser Marking Symbols
- Weight: 0.07 grams

MARKING



MBCR = Series code
20 = Amps class (2.0A)
J = Voltage class
J = 600V
K = 800V
M = 1000V
L = Low VF
- = Halogen-free type

Y = Last digit of the year
9 = 2009
0 = 2010
1 = 2011

WW = Mfg week
01 = First week
02 = Second week
03 = Third week

ABSOLUTE MAXIMUM RATINGS

(at $T_A=25^\circ\text{C}$ unless otherwise specified)

PARAMETERS	SYMBOL	RATING	UNIT
Repetitive peak reverse voltage	V_{RRM}	600	V
Average Forward Current	$I_{F(AV)}$	2.0	A
Peak forward surge current, 8.3ms single half sine-wave	I_{FSM}	60	A
Operating and Storage temperature range	T_J, T_{STG}	-55 ~ 175	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS (at $T_A=25^\circ\text{C}$ unless otherwise specified)

PARAMETERS	SYMBOL	Min.	Typ.	Max.	UNIT
Forward Voltage at $I_F = 2.0A$	V_F	-	0.92	0.95	V
Repetitive peak reverse current $V_R = \text{Max. } V_{RRM}$	I_{RRM}	-	0.08	5	μA
Current squared time $t < 8.3\text{ms}$	I^2t	-	14.9	-	A^2s
Junction Capacitance, $V_R = 4V, f = 1.0\text{MHz}$	C_J	-	35	-	pF
Thermal Resistance Junction to Ambient ¹	$R_{\theta JA}$	-	60	-	$^\circ\text{C/W}$
Thermal Resistance Junction to Lead ²	$R_{\theta JL}$	-	3	-	

Note: 1. Thermal resistance, junction to ambient, measured on PC board with 5.0 x 5.0mm (0.03mm thick) land areas.
2. The thermal resistance in measured over the centered point of the copper pad.

RATINGS AND CHARACTERISTIC CURVES

FIG. 1 - FORWARD CURRENT DERATING CURVE

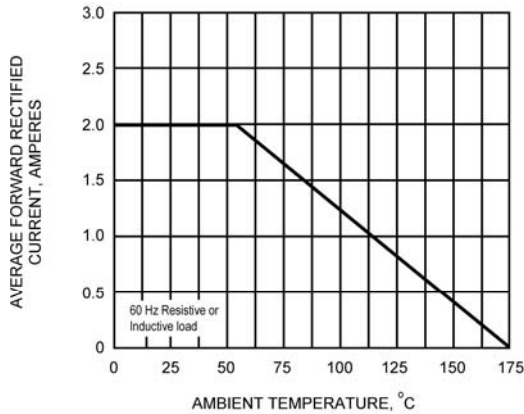


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

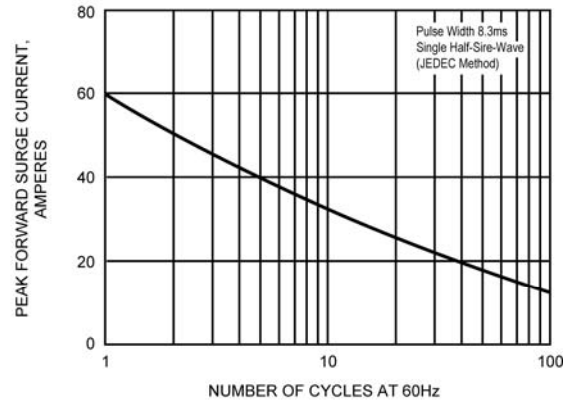


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

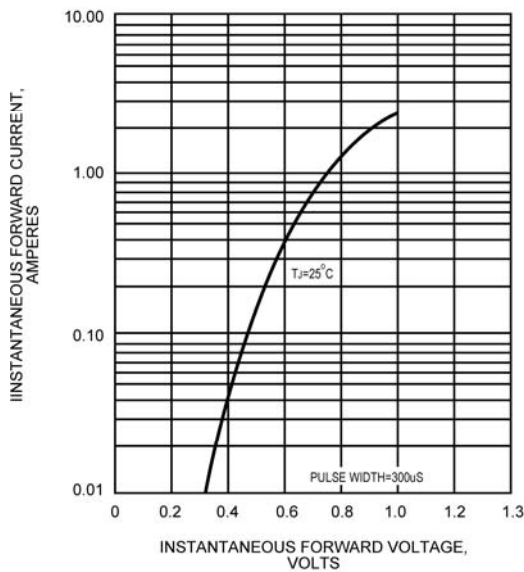


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

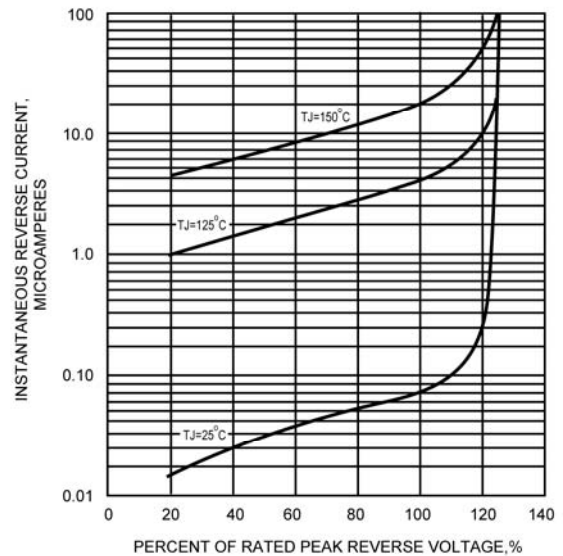


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

