

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

FEATURES

- Halogen-free type
- Glass passivated chip junctions
- Compliance to RoHS product
- Leadless chip form, no lead damage
- Low power loss, High efficiency
- High current capability
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0

APPLICATION

- AC/DC Power Supply
- Communication Equipment
- Lighting

MECHANICAL DATA

- Case : Packed with FRP substrate and epoxy underfilled
- Terminals : Pure Tin plated (Lead-Free), solderable per MIL-STD-750, Method 2026

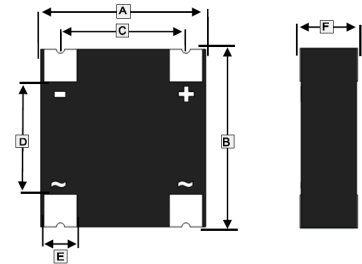
MARKING

M

PACKAGE INFORMATION

Package	MPQ	Leader Size
MBCN	5K	13 inch

MBCN



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	3.40	3.60	D	2.00	2.35
B	3.70	3.90	E	0.60	0.80
C	2.44	2.64	F	0.95	1.35

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

Parameters	Symbol	Rating	Unit
Repetitive peak reverse voltage	V_{RRM}	1000	V
Average Forward Current	$I_{F(AV)}$	on glass-epoxy P.C.B. ¹	0.5
		on aluminum substrate ²	0.8
Peak forward surge current, 8.3ms single half sine-wave	I_{FSM}	30	A
Operating and Storage temperature range	T_J, T_{STG}	-55 ~ 150	$^\circ\text{C}$

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

Parameters	Symbol	Min.	Typ.	Max.	Unit
Forward Voltage at $I_F = 0.4\text{A}$	V_F	-	0.9	1	V
Repetitive peak reverse current @ $V_R = \text{Max. } V_{RRM}$	I_{RRM}	$T_A=25^\circ\text{C}$	0.08	5	uA
		$T_A=125^\circ\text{C}$	-	100	
Current squared time $t < 8.3\text{ms}$	I^2t	-	3.74	-	A^2s
Thermal Resistance Junction to Ambient ¹	$R_{\theta JA}$	-	130	-	$^\circ\text{C/W}$
Thermal Resistance Junction to Lead ¹	$R_{\theta JL}$	-	40	-	

Note:

1. On glass epoxy P.C.B. mounted on 0.05" x 0.05" (1.3 x 1.3 mm) solder pads.
2. On aluminum substrate P.C.B. with an area of 0.8 x 0.8" (20 x 20 mm) mounted on 0.05" x 0.05" (1.3 x 13. mm) solder pads.
3. Preliminary specification.

RATINGS AND CHARACTERISTIC CURVES

FIG.1 - FORWARD CURRENT DERATING CURVE

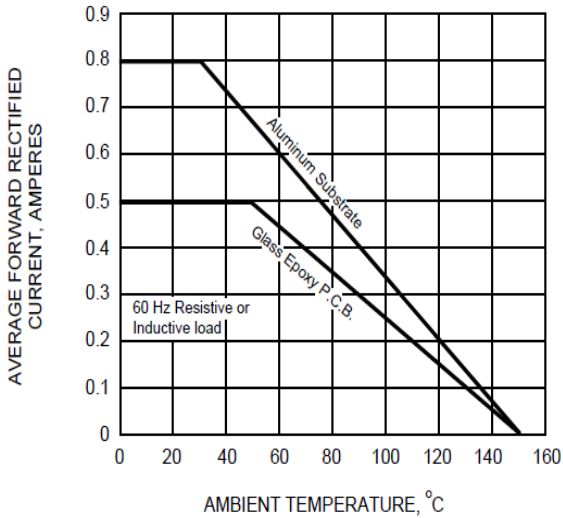


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

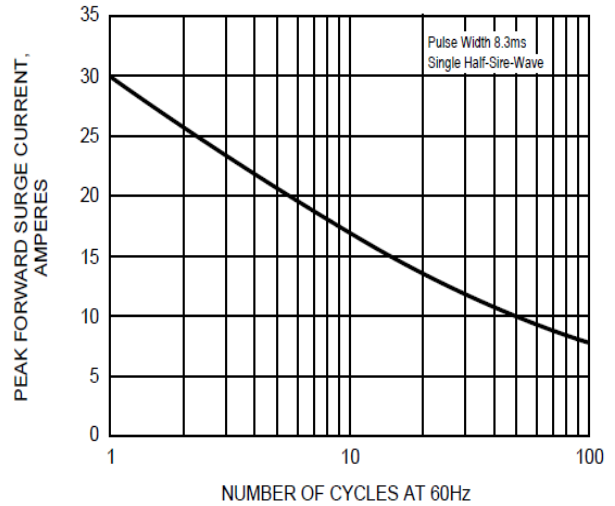


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

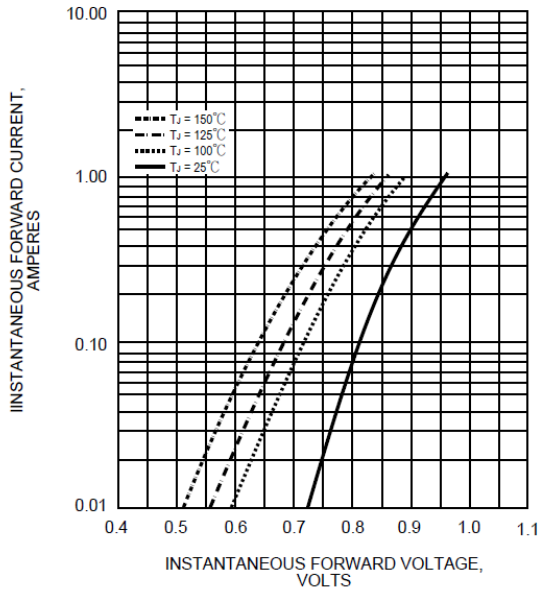


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

