

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

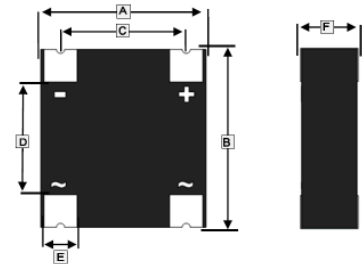
MARKING

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

| Parameters | Symbol | Rating | Unit |
|---|----------------|-----------|------------------|
| Repetitive peak reverse voltage | V_{RRM} | 1000 | V |
| Average Forward Current | $I_{F(AV)}$ | 1 | A |
| 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 | μA |
| | | $T_A=125^\circ\text{C}$ | - | - | 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 | - | $^\circ\text{C}/\text{W}$ | |
| Thermal Resistance Junction to Case ¹ | $R_{\theta JC}$ | - | 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. Preliminary specification.

RATINGS AND CHARACTERISTIC CURVES

FIG.1 - FORWARD CURRENT DERATING CURVE

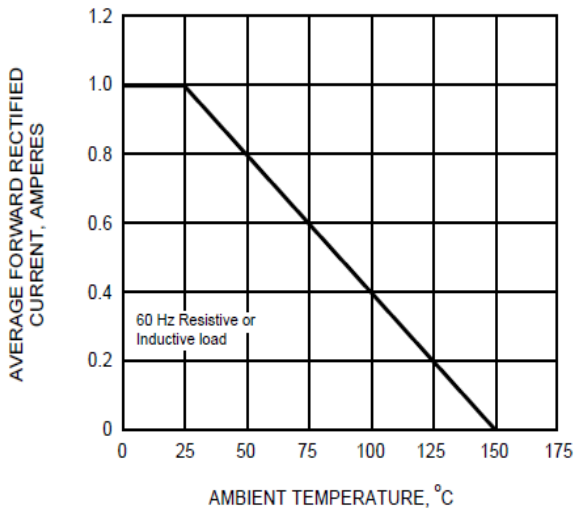


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

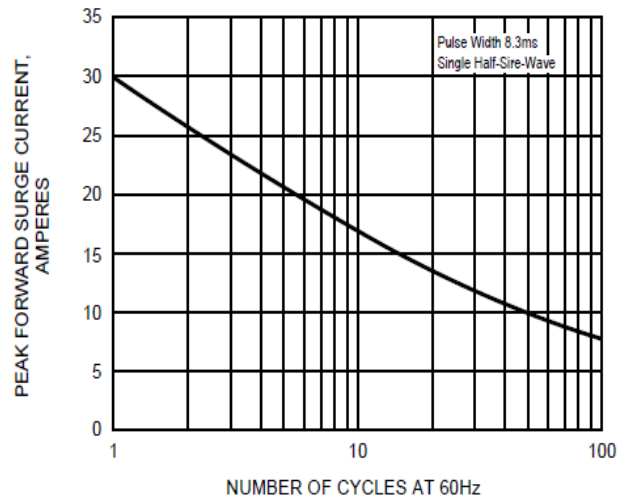


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

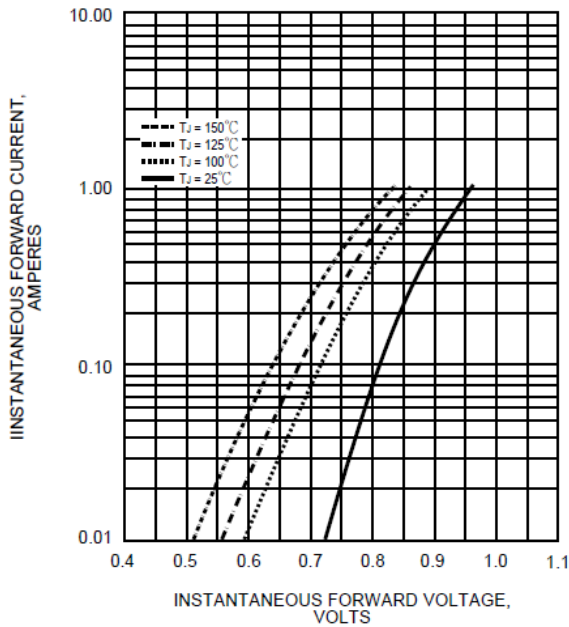


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

