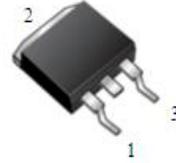


HBRA10100BCT & HBRA10100HCT

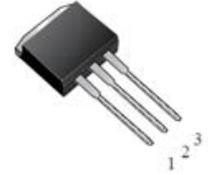
10.0AMPS. SCHOTTKY BARRIER RECTIFIERS

FEATURE

- . High current capability
- . Low forward voltage drop
- . Low power loss, high efficiency
- . High surge capability
- . High temperature soldering guaranteed
260°C /10seconds, 0.25"(6.35mm)from case.



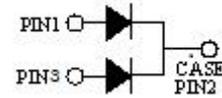
TO-262
HBRA10100BCT



TO-262
HBRA10100HCT

MECHANICAL DATA

- . Case: Molded with UL-94 Class V-0 recognized
Flame Retardant Epoxy
- . Mounting position: any



Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

MAXIMUM RATINGS (T_C=25°C unless otherwise noted)

| Parameter | Symbol | HBRA10100BCT & HBRA10100HCT | Units |
|-----------------------------------------------------------------------------------------------------------------------|-----------------------------------|-----------------------------|-------|
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 100 | V |
| Maximum RMS Voltage | V _{RMS} | 70 | V |
| Maximum DC blocking Voltage | V _{DC} | 100 | V |
| Maximum Average Forward Rectified Current <i>Per Leg</i> at T _C =100°C <i>Total device</i> | I _{F(AV)} | 5.0 10.0 | A |
| Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) <i>Per Leg</i> | I _{FSM} | 120.0 | A |
| Typical Junction Capacitance (Note 1) | C _J | 106 | pF |
| Operation Junction Temperature and Storage Temperature | T _J , T _{STG} | -55 to +175 | °C |

ELECTRICAL CHARACTERISTICS - (Per Leg) (T_C=25°C unless otherwise noted)

| Parameter | Symbol | Test conditions | Typ | Max | Units | |
|-------------------------|----------------|-----------------------|----------------------|------|-------|----|
| Forward voltage drop | V _F | T _J =25°C | I _F =2A | 0.70 | ---- | V |
| | | | I _F =5A | 0.78 | 0.85 | |
| | | T _J =125°C | I _F =2A | 0.55 | ---- | |
| | | | I _F =5A | 0.63 | 0.70 | |
| Reverse leakage current | I _R | T _J =25°C | V _R =100V | ---- | 20 | uA |
| | | T _J =125°C | V _R =100V | ---- | 5 | mA |

THERMAL CHARACTERISTICS (T_C=25°C unless otherwise noted)

| Parameter | Symbol | HBRA10100BCT | HBRA10100HCT | Units |
|-------------------------------------|-------------------|--------------|--------------|-------|
| Typical Thermal Resistance (Note 2) | R _(JC) | 2.0 | 2.0 | °C/W |

Notes:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
2. Thermal Resistance from Junction to Case

RATING AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

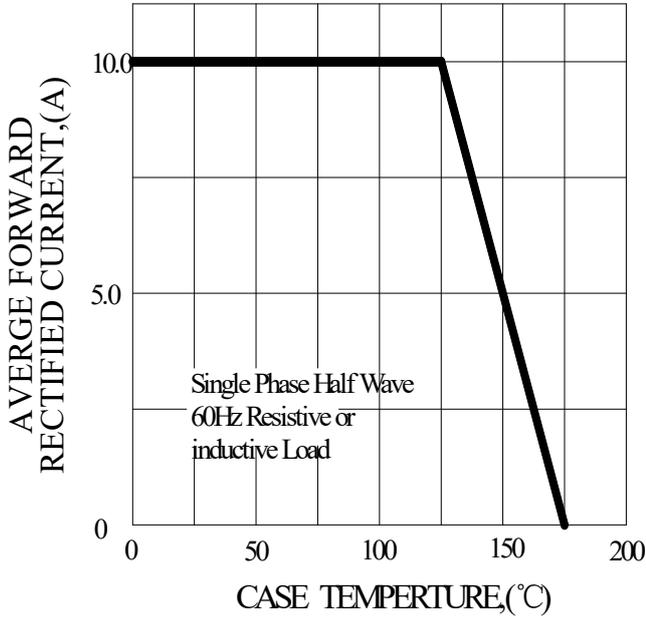


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

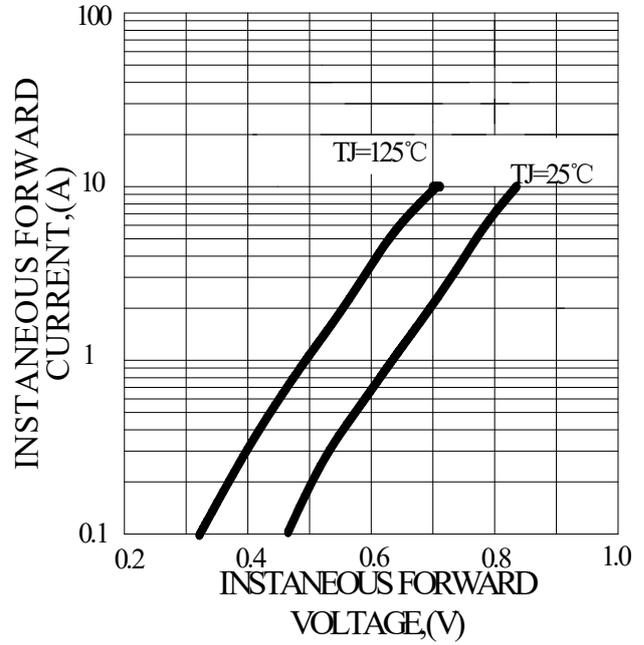


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

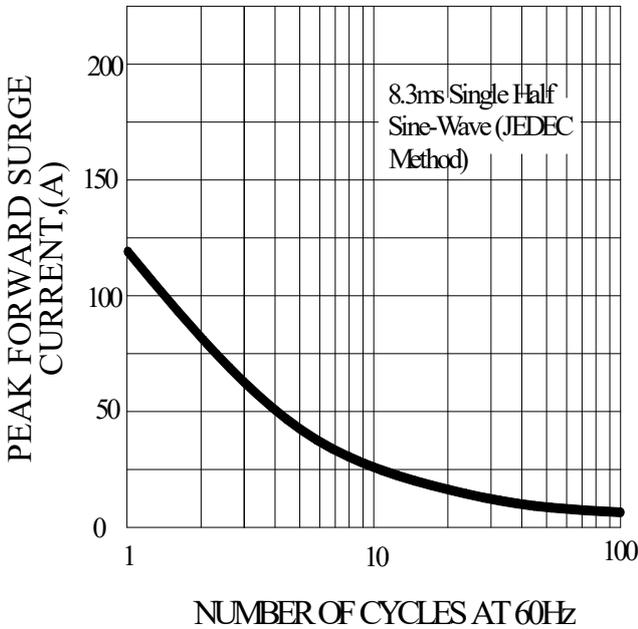
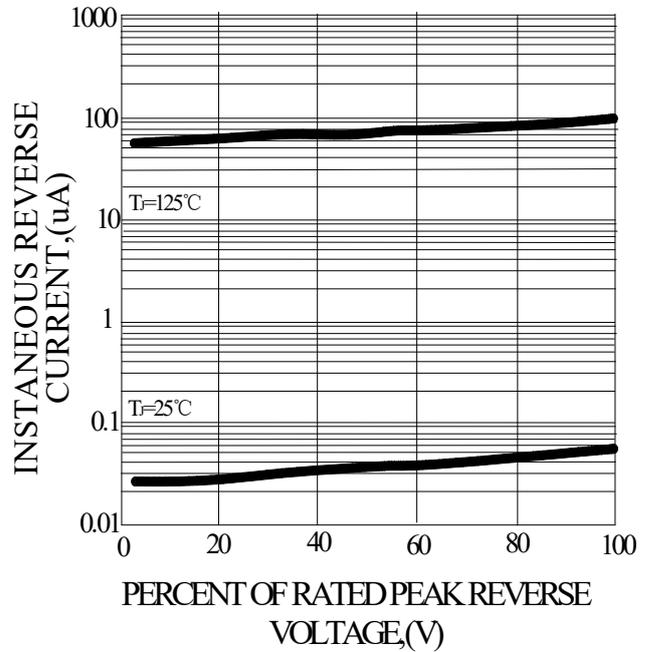
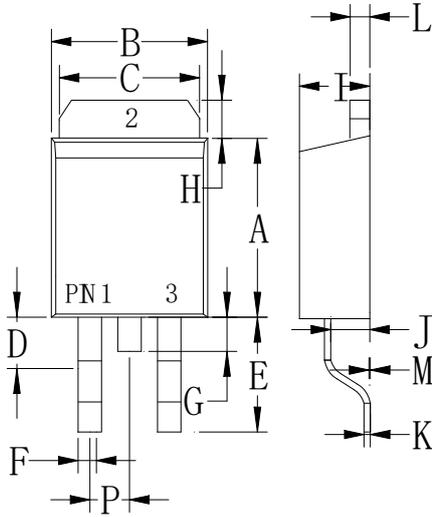


FIG.4-TYPICAL REVERSE CHARACTERISTICS



PACKAGE OUTLINE DIMENSIONS

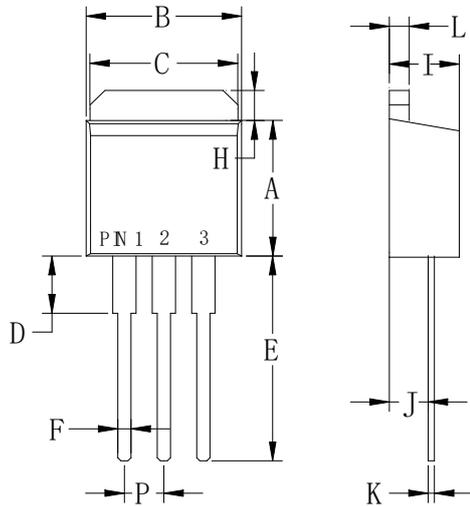
TO-263



| TO-263 | | |
|--------|-------------|-------------|
| Dim | Min | Max |
| A | .323 (8.20) | .348 (8.85) |
| B | .394 (10.0) | .413 (10.5) |
| C | .394 (10.0) | .402 (10.2) |
| D | .077 (1.95) | .100 (2.55) |
| E | .204 (5.17) | .227 (5.77) |
| F | .027 (0.68) | .037 (0.94) |
| G | — | .067 (1.70) |
| H | .046 (1.17) | .053 (1.34) |
| I | .175 (4.44) | .191 (4.86) |
| J | .100 (2.54) | .110 (2.79) |
| K | .014 (0.35) | .025 (0.64) |
| L | .047 (1.20) | .055 (1.40) |
| M | .000 (0.00) | .010 (0.25) |
| P | .095 (2.41) | .105 (2.67) |

Dimensions in inches and (millimeters)

TO-262



| TO-262 | | |
|--------|-------------|-------------|
| Dim | Min | Max |
| A | .323 (8.20) | .348 (8.85) |
| B | .394 (10.0) | .413 (10.5) |
| C | .394 (10.0) | .402 (10.2) |
| D | .140 (3.56) | .160 (4.06) |
| E | .510 (13.0) | .560 (14.3) |
| F | .027 (0.68) | .037 (0.94) |
| H | .046 (1.17) | .053 (1.34) |
| I | .175 (4.44) | .185 (4.86) |
| J | .100 (2.54) | .110 (2.79) |
| K | .014 (0.35) | .025 (0.64) |
| L | .045 (1.14) | .055 (1.40) |
| P | .095 (2.41) | .105 (2.67) |

Dimensions in inches and (millimeters)

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