FEATURES
* Low cost
* Low leakage
* Low forward voltage drop
* High current capability

MECHANICAL DATA
* Case: Molded plastic
* Epoxy: UL 94V-0 rated flame retardant
* Lead: MIL-STD-202E, Method 208 guaranteed
* Polarity: Color band denotes cathode end
* Mounting position: Any
* Weight: 0.33 gram approx.

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS
Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

<table>
<thead>
<tr>
<th>SYMBOL</th>
<th>BY133</th>
<th>EM513</th>
<th>EM516</th>
<th>EM520</th>
<th>UNITS</th>
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<tr>
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<td>1600</td>
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<td>2000</td>
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<td>1400</td>
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<td>500</td>
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<td></td>
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<td></td>
<td></td>
<td>°C</td>
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Note 1: Measured at 1 MHz and applied reverse voltage of 4.0 volts.
Note 2: Typical thermal resistance from junction to ambient.
RATING AND CHARACTERISTIC CURVES (BY133 THRU EM520)

**FIG. 1**
TYPICAL FORWARD CURRENT DERATING CURVE

- AVERAGE FORWARD CURRENT (A)
- AMBIENT TEMPERATURE (°C)

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

- PEAK FORWARD SURGE CURRENT (A)
- NUMBER OF CYCLES AT 60Hz

**FIG. 3**
TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

- INSTANTANEOUS FORWARD CURRENT (A)
- INSTANTANEOUS FORWARD VOLTAGE (V)

**FIG. 4**
TYPICAL REVERSE CHARACTERISTICS

- INSTANTANEOUS REVERSE CURRENT (µA)
- PERCENT OF RATED PEAK REVERSE VOLTAGE (%)

**FIG. 5**
TYPICAL JUNCTION CAPACITANCE

- JUNCTION CAPACITANCE (pF)
- REVERSE VOLTAGE (V)
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