



Micro Commercial Components



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EM513 THRU EM518

Features

- Halogen free available upon request by adding suffix "-HF"
- High reverse voltage
- Low reverse leakage
- High forward surge current capability.
- Lead Free Finish/RoHS Compliant (Note2) ("P" Suffix designates Compliant. See ordering information)
- Weight: 0.012 ounce, 0.33grams
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

Maximum Ratings

- Operating Temperature: -65°C to +150°C
- Storage Temperature: -65°C to +150°C

| MCC Part Number | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|--|---------------------|-----------------------------|
| EM513 | 1600V | 1120V | 1600V |
| EM516 | 1800V | 1260V | 1800V |
| EM518 | 2000V | 1400V | 2000V |

Electrical Characteristics @ 25°C Unless Otherwise Specified

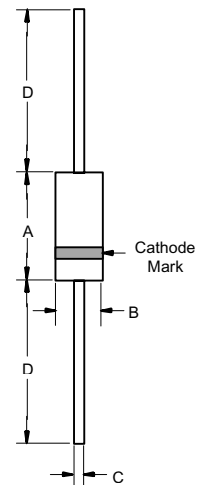
| | | | |
|---|------------|--------------|---|
| Average Forward Current | I_O | 1.0A | .375" (9.5mm) Lead Length $T_A = 55^\circ\text{C}$ |
| Peak Forward Surge Current | I_{FSM} | 25A | 8.3ms, half sine |
| Maximum Instantaneous Forward Voltage EM513~EM516 EM518 | V_F | 1.1V 1.2V | $I_{FM} = 1.0A;$ $T_J = 25^\circ\text{C}$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 5µA 50µA | $T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$ |
| Typical Junction Capacitance | C_J | 15pF | Measured at 1.0MHz, $V_R=4.0V$ |
| Typical Thermal Resistance | R_{thja} | 50°C/W | (Note 1) |

Note 1: Thermal Resistance from Junction to Ambient at 0.375" (9.5mm) lead length, P.C. board mounted.

2: High Temperature Solder Exemption Applied, see EU Directive Annex 7.

1.0 Amp General Purpose Plastic Rectifier 1600 to 2000 Volts

DO-41



| DIM | INCHES | | MM | | NOTE |
|-----|--------|------|-------|------|------|
| | MIN | MAX | MIN | MAX | |
| A | .166 | .205 | 4.10 | 5.20 | |
| B | .080 | .107 | 2.00 | 2.70 | |
| C | .028 | .034 | .70 | .90 | |
| D | 1.000 | --- | 25.40 | --- | |

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FIG.1-TYPICAL FORWARD CURRENT
DERATING CURVE

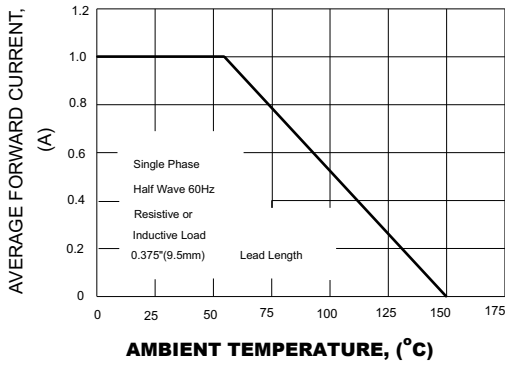


FIG.2-MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT

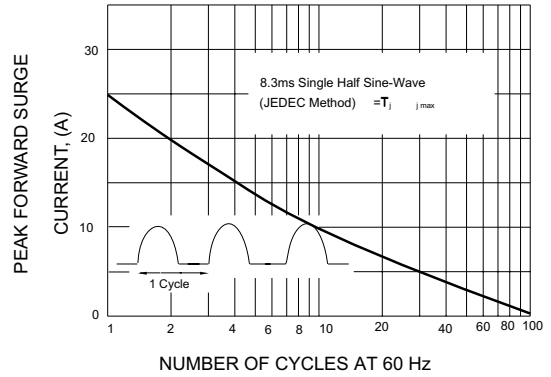


FIG.3-TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS

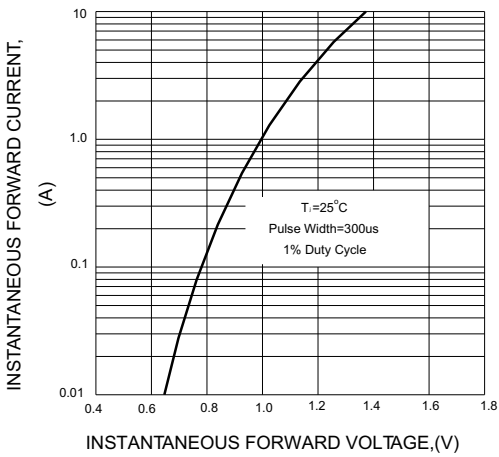


FIG.4-TYPICAL REVERSE
CHARACTERISTICS

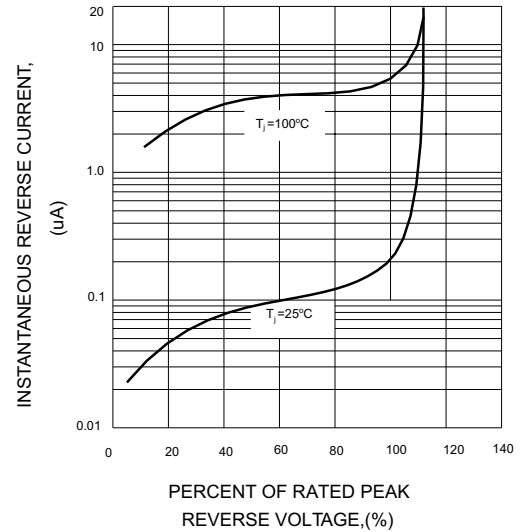
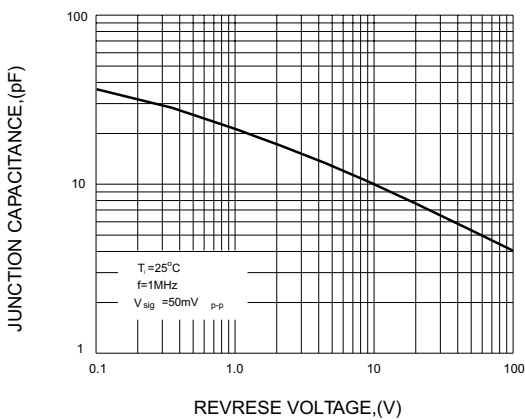


FIG.5-TYPICAL JUNCTION CAPACITANCE





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Ordering Information :

| Device | Packing |
|----------------|----------------------------|
| Part Number-TP | Tape&Reel; 5Kpcs/Reel |
| Part Number-AP | Ammo Packing;5Kpcs/AmmoBox |
| Part Number-BP | Bulk: 50Kpcs/Carton |

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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