

Features

- Glass Passivated Die
- Low Forward Voltage Drop
- High Current Capability
- High Surge Current
- Low Leakage
- Anode To Tab Configuration

Maximum Ratings

- Operating Temperature: -65°C to +150°C
- Storage Temperature: -65°C to +175°C
- Thermal Resistance Junction to Case ($R_{\theta jc}$): 0.8°C/W

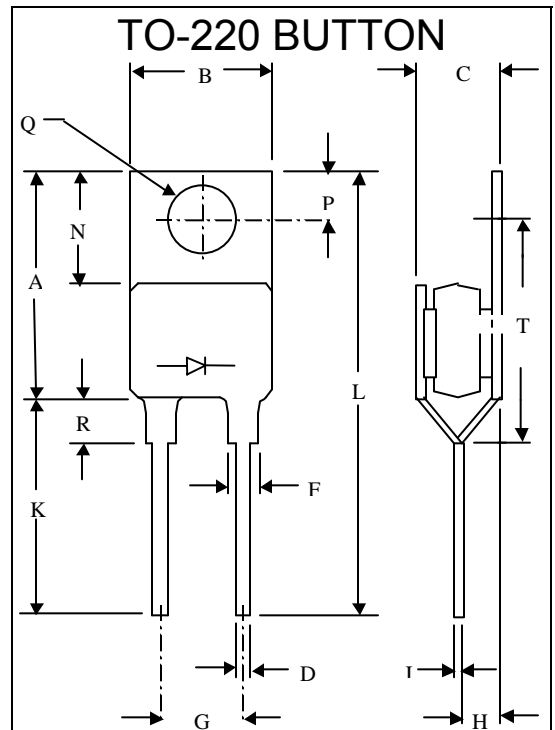
| MCC Part Number | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|--|---------------------|-----------------------------|
| MR2406FR | 600V | 420V | 600V |

MR2406FR

24 Amp Rectifier 600 Volts

Electrical Characteristics @ 25°C Unless Otherwise Specified

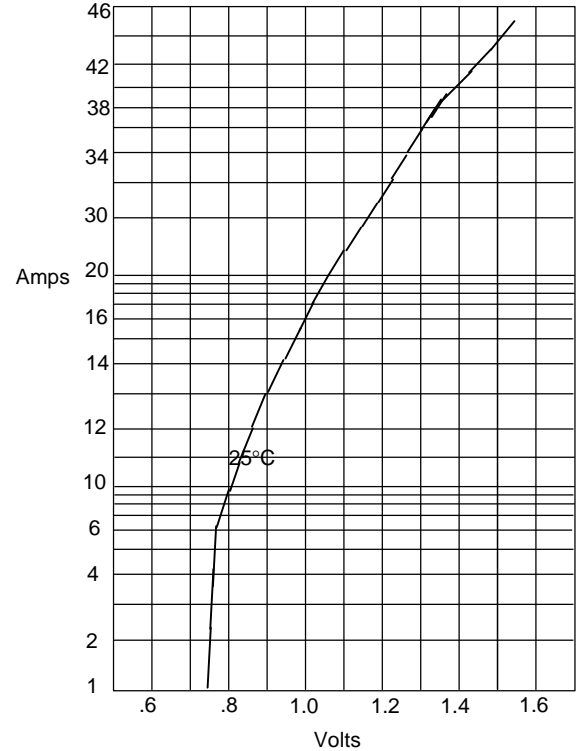
| | | | |
|---|-------------|---------------------------------------|--|
| Average Forward Current | $I_{F(AV)}$ | 24.0A | $T_c = 125^\circ\text{C}$ |
| Peak Forward Surge Current | I_{FSM} | 300A | 8.3ms, half sine |
| Maximum Instantaneous Forward Voltage | V_F | 1.15V | $I_{FM} = 24.0\text{A};$ $T_A = 25^\circ\text{C}$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 25 μA 1.0 μA | $T_c = 25^\circ\text{C}$ $T_c = 100^\circ\text{C}$ |
| Maximum Reverse Recovery Time | T_{rr} | 250ns | $I_F = 0.5\text{A}, I_R = 1.0\text{A},$ $I_{rr} = 0.25\text{A}$ |
| Typical Junction Capacitance | C_J | 95pF | Measured at 1.0MHz, $V_R = 4.0\text{V}$ |



| DIM | INCHES | | MM | | NOTE |
|-----|--------|-------|-------|-------|------|
| | MIN | MAX | MIN | MAX | |
| A | .560 | .625 | 14.22 | 15.88 | |
| B | .380 | .420 | 9.65 | 10.67 | |
| C | .284 | .310 | 7.21 | 7.87 | |
| D | .025 | .045 | 0.64 | 1.14 | |
| F | .060 | .090 | 1.52 | 2.29 | |
| G | .170 | .210 | 4.32 | 5.33 | |
| H | .080 | .110 | 2.03 | 2.92 | |
| J | .023 | .029 | 0.58 | 0.74 | |
| K | --- | .562 | --- | 14.27 | |
| L | --- | 1.187 | --- | 30.15 | |
| N | .230 | .270 | 5.84 | 6.86 | |
| P | .100 | .120 | 2.54 | 3.05 | |
| Q | .139 | .147 | 3.53 | 3.73 | |
| R | --- | .200 | --- | 5.08 | |
| S | .140 | .150 | 3.55 | 3.80 | |
| T | .670 | .690 | 17.02 | 17.53 | |

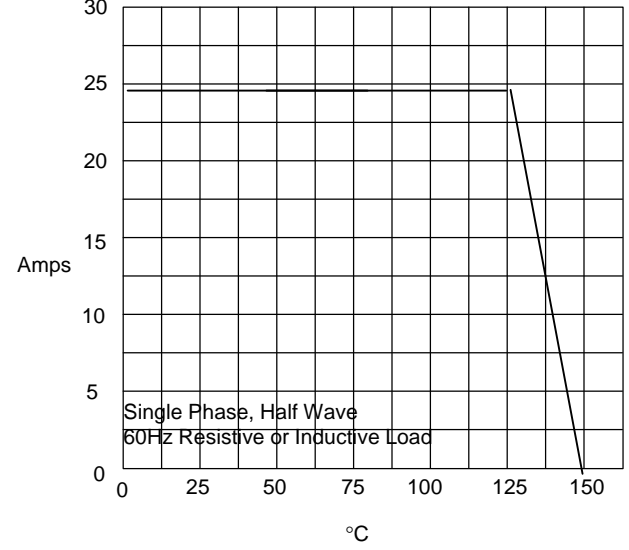
*Pulse test: Pulse width 300 μsec , Duty cycle 1%

Figure 1
Typical Forward Characteristics



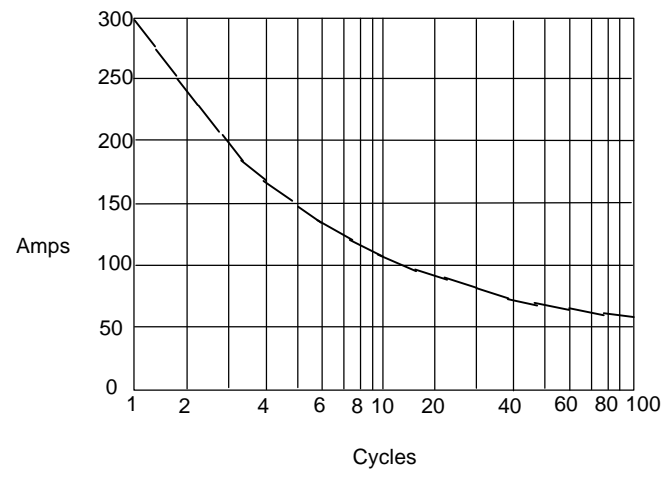
Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



Single Phase, Half Wave
60Hz Resistive or Inductive Load
Average Forward Rectified Current - Amperes *versus*
Ambient Temperature - °C

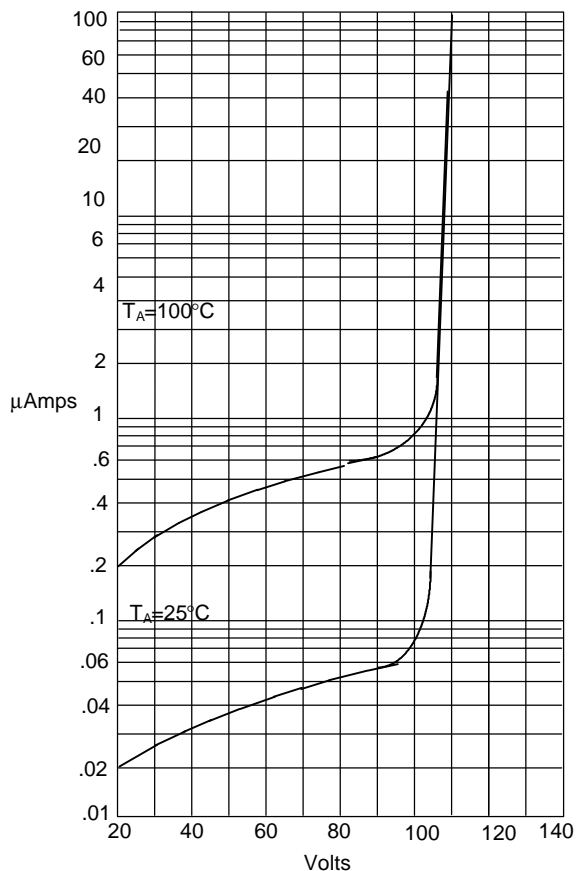
Figure 3
Maximum Non-Repetitive Forward Surge Current



Peak Forward Surge Current - Amperes *versus*
Number Of Cycles At 60Hz - Cycles

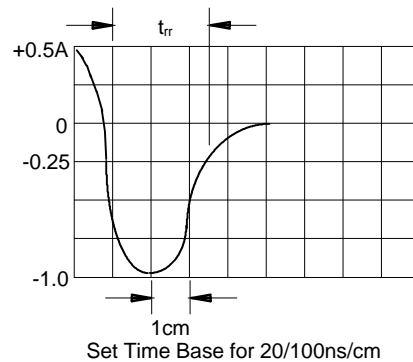
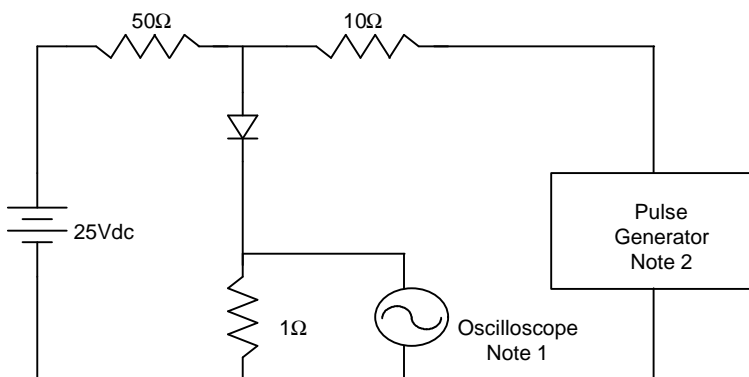
FR2406FR

Figure 4
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - MicroAmperes versus
Percent Of Rated Peak Reverse Voltage - Volts

Reverse Recovery Time Characteristic And Test Circuit Diagram



- Notes:
1. Rise Time = 7ns max.
Input impedance = 1 megohm, 22pF
 2. Rise Time = 10ns max.
Source impedance = 50 ohms
 3. Resistors are non-inductive