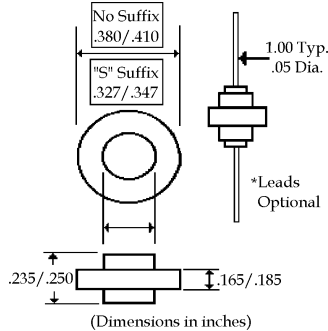
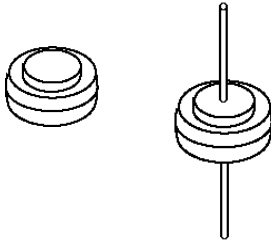




Description

Mechanical Dimensions

FR5028



Options - Add Suffix to Part #:
FR5028L = 2 Leads
For 1 Lead:
FR5028C = Lead On Cathode
FR5028A = Lead On Anode

Features

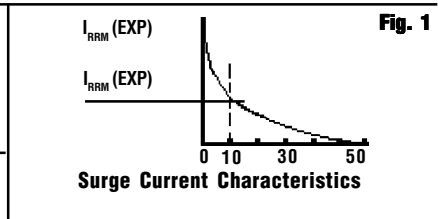
- **INEXPENSIVE**
- **GLASS PASSIVATED DIE**

- **AVALANCHE VOLTAGE 24 TO 32 VOLTS**

FR5028

| Maximum Ratings | Symbol | Value | Units |
|---|-----------------|------------|------------------|
| Peak Repetitive Reverse Voltage | V_{RRM} | 20 | Volts |
| Working Peak Reverse Voltage | V_{RWM} | 20 | Volts |
| DC Blocking Voltage | V_{DC} | 20 | Volts |
| Repetitive Peak Reverse Surge Current Time Constant = 10 ms, Duty Cycle 1%, $T_C = 25^\circ\text{C}$ (See Fig. 1) | I_{RSM} | 150 | Amps |
| Average Forward Rectified Current Single Phase, Resistive Load, 60 Hz, $T_C = 150^\circ\text{C}$ | I_O | 50 | Amps |
| Non-Repetitive Peak Forward Surge Current Surge Supplied @ Rated Load Conditions, 1/2 Wave, Single Phase | I_{FSM} | 800 | Amps |
| Operating & Storage Temperature Range | T_J, T_{STRG} | -65 to 175 | $^\circ\text{C}$ |

| | Length | Max. | Units |
|--------------------------------------|--------|--------|-----------------------------|
| Thermal Resistance, Junction to Lead | | | |
| Both Equal Length Leads to Heat Sink | 1/4" | 7.5 | $^\circ\text{C} / \text{W}$ |
| $R_{\theta JL}$ | 3/8" | 10 | $^\circ\text{C} / \text{W}$ |
| | 1/2" | 13 | $^\circ\text{C} / \text{W}$ |
| Thermal Resistance, Junction to Case | | .8 Typ | $^\circ\text{C} / \text{W}$ |
| $R_{\theta JC}$ | | | |



| Electrical Characteristics | Min. | Max. | Units |
|---|------|-------|-----------------------|
| Instantaneous Forward Voltage ($I_F = 100$ Amps, $T_C = 25^\circ\text{C}$)... V_F | N/A | 1.1 | Volts |
| Instantaneous Reverse Current ($V_R = 20$ V_{DC} , $T_C = 25^\circ\text{C}$)... I_R | N/A | 1.0 | μAmps |
| Breakdown Voltage ($I_R = 100$ mAmps, $T_C = 25^\circ\text{C}$)... V_{BR} | 24 | 32 | Volts |
| Clamping Voltage ($I_R = 90$ Amps, $T_C = 150^\circ\text{C}$, $PW = 80$ μs)... V_{BR} | N/A | 38 | Volts |
| Typical Breakdown Voltage Temperature Coefficient... $V_{(br)T_C}$ | N/A | 0.096 | % / $^\circ\text{C}$ |
| Typical Forward Voltage Temperature Coefficient...($I_F = 10$ mA) $V_{F(tc)}$ | N/A | 2 | mV / $^\circ\text{C}$ |