



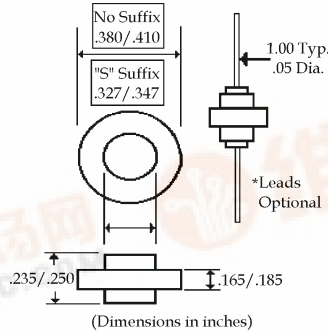
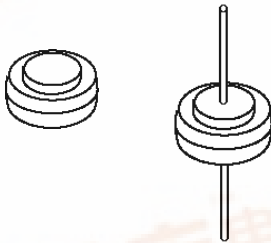
Data Sheet

FASTORB - 50 Amp Avalanche AUTOMOTIVE RECTIFIERS

Description

Mechanical Dimensions

FR5028



Options - Add Suffix to Part #:
FR5028L = 2 Leads

For 1 Lead:
FR5028C = Lead On Cathode
FR5028A = Lead On Anode

Features

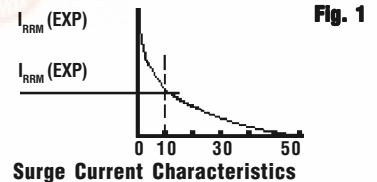
- INEXPENSIVE
- GLASS PASSIVATED DIE

- 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	I_{RSM}	150	Amps
Time Constant = 10 ms, Duty Cycle 1%, $T_c = 25^\circ\text{C}$ (See Fig. 1)			
Average Forward Rectified Current	I_O	50	Amps
Single Phase, Resistive Load, 60 Hz, $T_c = 150^\circ\text{C}$			
Non-Repetitive Peak Forward Surge Current	I_{FSM}	800	Amps
Surge Supplied @ Rated Load Conditions, $\frac{1}{2}$ Wave, Single Phase			
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	$\frac{1}{4}"$	7.5	$^\circ\text{C} / \text{W}$
$R_{\theta JL}$	$\frac{3}{8}"$	10	$^\circ\text{C} / \text{W}$
	$\frac{1}{2}"$	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 / $^\circ\text{C}$

