



180 Lafayette Road
 North Hampton, NH 03862-2448
 PH: 603-964-3165
 FX: 603-964-3168
 WWW.PDEELECTRONICS.COM

3 Phase Full Wave Bridge Assembly

Fast Recovery, High Current

S50A305FR, S50A310FR, S50A320FR, S50A340FR, S50A360FR, S50A380FR, S50A3100FR

FEATURES

- Low Forward Voltage Drop
- High Surge Rating
- Low Reverse Leakage Current
- Glass Passivated Diodes
- Isolated for Direct Heatsink Mounting
- Fast Reverse Recovery Time

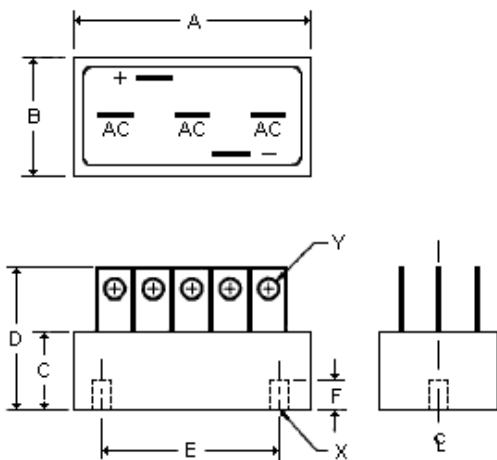
QUICK REFERENCE DATA

- $V_R = 50 \text{ Volts} - 1000 \text{ Volts}$
- $I_F = 50 \text{ Amp}$
- $I_{FSM} = 375 \text{ Amp}$

ABSOLUTE MAXIMUM RATINGS

Device	Working Reverse Voltage V_{RWM} Volts	Average Rectified Current $I_{F(AV)} @ T_{AMB}$						1 Cycle Surge
		Amps ($I_F @ T_{CASE}$)			Amps ($I_F @ T_{AMB}$)			I_{FSM} $T_p=8.3mS$ Amps
		@55°C	@100°C	@125C	@25°C	@55°C	@100C	$T_c @ 25C$
S50A305FR	50	50	33	25	12.5	10	6	375
S50A310FR	100	50	33	25	12.5	10	6	375
S50A320FR	200	50	33	25	12.5	10	6	375
S50A340FR	400	50	33	25	12.5	10	6	375
S50A360FR	600	50	33	25	12.5	10	6	375
S50A380FR	800	45	30	22.5	11.25	9	5.4	300
S50A3100FR	1000	45	30	22.5	11.25	9	5.4	300

MECHANICAL



	DIMENSION		NOTE
	INCHES		
	MIN	MAX	
A	1.98	2.20	
B	0.98	1.02	
C	0.61	0.65	
D	-	1.25	
E	1.48	1.52	
F	0.25	-	
X	#10-32 Tap Thread		
Y	0.161	0.181	DIA

CASE FINISH: BLACK ANODIZED

Specifications subject to change without notice to ensure a better product

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REV A



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ELECTRICAL CHARACTERISTICS

Device	Maximum Leakage Current Per Leg $I_R @ V_{RWM}$		Maximum Forward Voltage Per Leg $V_F @ I_F$		Maximum Reverse Recovery T_{RR}^*
	$T_C=25^\circ C$	$T_C=100^\circ C$	$T_C=25^\circ C$		$T_A=25^\circ C$
	μA	μA	Volts	Amps	nS
S50A305FR	9.0	180	1.3	10	200
S50A310FR	9.0	180	1.3	10	200
S50A320FR	9.0	180	1.3	10	200
S50A340FR	9.0	180	1.3	10	200
S50A360FR	9.0	180	1.3	10	200
S50A380FR	20.0	200	1.35	10	250
S50A3100FR	20.0	200	1.35	10	250

* Measured on discretes prior to assembly in reverse recovery circuit switching from 0.5A forward to 1.0A reverse current recovering to 0.25A reverse current.

THERMAL CHARACTERISTICS

Operating and Storage Temperature.....	-55°C to +150°C
Maximum Thermal Impedance (typical).....	0.9°C/W Junction to Case