



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

## Full Wave Bridge Assembly

High Current, 3 Phase  
 SC3BA Series

### FEATURES

- Low Thermal Impedance
- High Surge Rating
- High Current Rating
- Glass Passivated Diodes
- Isolated for Direct Heatsink Mounting
- Small Case Size

### QUICK REFERENCE DATA

- $V_R = 50V-600V$
- $T_{rr} = 30nS-2\mu S$
- $I_{FSM} \geq 175A$

### ABSOLUTE MAXIMUM RATINGS

Device	Working Reverse Voltage $V_{RWM}$	Average Rectified Current						1 Cycle Surge
		$I_{F(AV)} @ T_{MB}$						$I_{FSM}$ $T_p = 8.3mS$
		Volts	Amps ( $I_F @ T_{CASE}$ )			Amps ( $I_F @ T_{AMB}$ )		
		@55°C	@100°C	@125°C	@25°C	@55°C	@100°C	$T_c @ 25°C$
SC3BA05	50	18.0	12.4	9.0	6.0	5.0	3.0	150
SC3BA1	100	18.0	12.4	9.0	6.0	5.0	3.0	150
SC3BA2	200	18.0	12.4	9.0	6.0	5.0	3.0	150
SC3BA4	400	18.0	12.4	9.0	6.0	5.0	3.0	150
SC3BA6	600	18.0	12.4	9.0	6.0	5.0	3.0	150
SC3BA05F	50	15.0	10.5	7.5	6.0	5.0	3.0	150
SC3BA1F	100	15.0	10.5	7.5	6.0	5.0	3.0	150
SC3BA2F	200	15.0	10.5	7.5	6.0	5.0	3.0	150
SC3BA4F	400	15.0	10.5	7.5	6.0	5.0	3.0	150
SC3BA05FF	50	17.0	10.0	5.0	6.0	5.0	3.0	175
SC3BA10FF	100	17.0	10.0	5.0	6.0	5.0	3.0	175
SC3BA15FF	150	17.0	10.0	5.0	6.0	5.0	3.0	175

### THERMAL CHARACTERISTICS

Operating and Storage Temperature.....	-55°C to +150°C
Maximum Thermal Impedance (typical).....	2.5°C/W Junction to Case



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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 $T_{RR}^*$
	$T_C=25^\circ C$	$T_C=100^\circ C$	$T_C=25^\circ C$		$T_A=25^\circ C$
	$\mu A$	$\mu A$	Volts	Amps	nS
SC3BA05	3	60	1.0	3.0	2000
SC3BA1	3	60	1.0	3.0	2000
SC3BA2	3	60	1.0	3.0	2000
SC3BA4	3	60	1.0	3.0	2000
SC3BA6	3	60	1.0	3.0	2000
SC3BA05F	3	75	1.1	3.0	150
SC3BA1F	3	75	1.1	3.0	150
SC3BA2F	3	75	1.1	3.0	150
SC3BA4F	3	75	1.1	3.0	150
SC3BA05FF	30	1500	0.97	5.0	30
SC3BA10FF	30	1500	0.97	5.0	30
SC3BA15FF	30	1500	0.97	5.0	30

\* 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.

### MECHANICAL

