

TECHNICAL DATA
DATA SHEET 5375, REV. B

**THREE PHASE FULL WAVE BRIDGE RECTIFIER ASSEMBLY WITH
AISiC TECHNOLOGY**

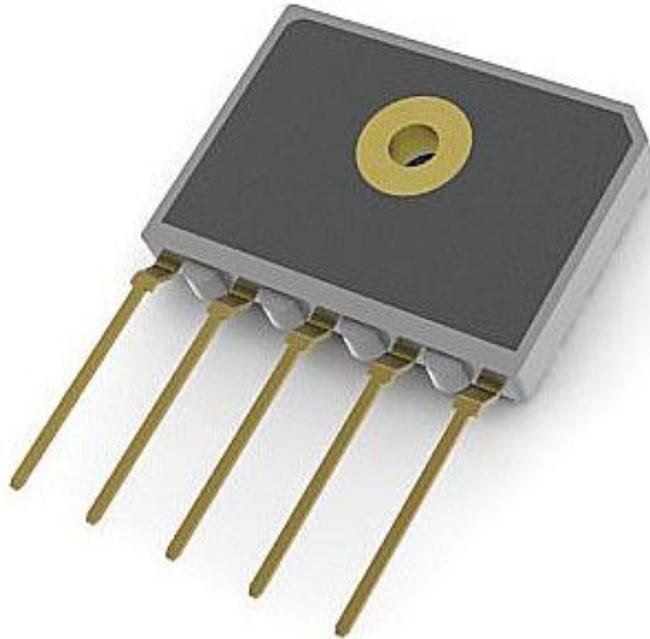
DESCRIPTION: 1200 V, 45 A, 850 nsec THREE PHASE BRIDGE RECTIFIER ASSEMBLY
MAX. RATINGS / ELECTRICAL CHARACTERISTICS All ratings are at $T_A = 25^\circ\text{C}$ unless otherwise specified.

RATING	CONDITIONS	MIN	TYP	MAX	UNIT
Non-Repetitive Peak Inverse Voltage (PIV)	$T_J = -55^\circ\text{C}$	1200	-	-	Vdc
Repetitive Peak Inverse Voltage (PIV)	$T_J = -40^\circ\text{C}$	1200	-	-	Vdc
Average DC Output Current ($T_C = \text{Case Temp}$) (I_o)	$T_C = 55^\circ\text{C}$ $T_C = 100^\circ\text{C}$ $T_C = 125^\circ\text{C}$	-	-	45 28 16	A
Average DC Output Current ($T_A = \text{Ambient Temp}$) (no heat sink) (I_o)	$T_A = 25^\circ\text{C}$ $T_A = 55^\circ\text{C}$ $T_A = 100^\circ\text{C}$	-	-	8.0 5.0 2.5	A
Peak Single Cycle Surge Current (I_{FSM})	$t = 1.25\text{ms}$ single square wave $T_C = 25^\circ\text{C}$ $T_C = 150^\circ\text{C}$ $t = 8.3\text{ms}$ 60Hz single pulse sine wave $T_C = 25^\circ\text{C}$ $T_C = 150^\circ\text{C}$	400	700 570 325		A
Energy Rating I^2t	$T = 1.25\text{ms}$ single square wave $T_C = 25^\circ\text{C}$ $T_C = 150^\circ\text{C}$		612 405		A^2s
Junction temperature	T_J	-55		+175	$^\circ\text{C}$
Case temperature	T_{OP}	-55		+150	
Material temperature	T_{STG}	-55		+150	
Maximum Forward Voltage (V_F) (300 μs pulse, duty cycle < 2%)	$T_C = 25^\circ\text{C}$, $I_F = 9\text{A}$ $T_C = 25^\circ\text{C}$, $I_F = 45\text{A}$ $T_C = 125^\circ\text{C}$, $I_F = 9\text{A}$ $T_C = 125^\circ\text{C}$, $I_F = 45\text{A}$	-	-	1.5 1.9 1.4 1.85	V
Maximum Instantaneous Reverse Current at Rated PIV	$T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$	-	-	10 500	μA
Reverse Recovery Time (t_{RR})	$I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$, $T_C = 25^\circ\text{C}$	-	-	850	nsec
Junction Capacitance (C_J)	$V_R = 100\text{V}$, $f = 1\text{MHz}$	-	25	-	pF
Thermal Resistance (θ_{JL})	Per Leg	-	-	4.0	$^\circ\text{C/W}$

SENSITRON**TECHNICAL DATA****DATA SHEET 5375, REV. B****Mechanical Characteristics:**

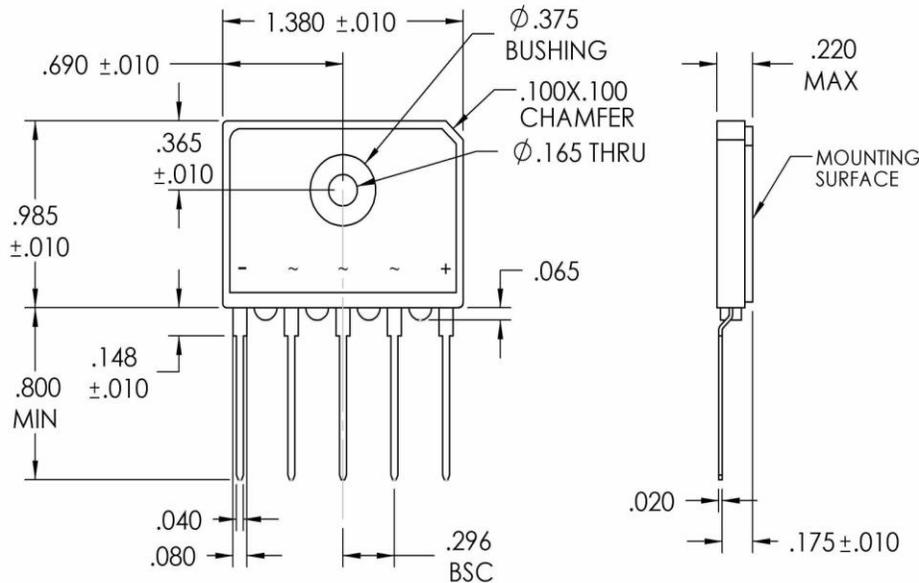
RATING	CONDITIONS	MIN	TYP	MAX	UNIT
Isolation Voltage	All Leads - Base Plate 60Hz, 60S	-	2000	-	V
Mounting Torque	20°C	-	10	-	In-lb.
Max Acceleration	-	-	-	50	m/s ²
Weight	-	-	16	-	gms
Life thermal Cycling (Qualification test only)	-40°C to 125°C	-	750	-	Cycles

Note: Add a suffix S to the part number for S-100 Screening.



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MECHANICAL DIMENSIONS: In Inches



TOLERANCE UNLESS OTHERWISE NOTED $\pm .005$

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