



POWER MODULES

SERIES B48-2T; SERIES M50

35A-100A
DIODE CIRCUITS

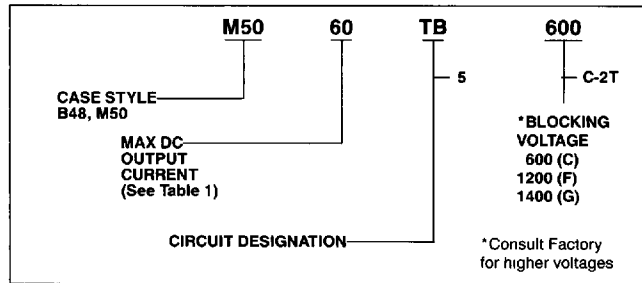
Parameter	Sym.	Units	M50 Rating			Conditions
			B48-2T	Single Phase	Three Phase	
DC Output Current, 1φ (Max)	I_O	A	35	60	100	$T_C = 100^\circ\text{C}$ Max (table 1)
DC Output Current, 3φ (Max)	I_O	A	50	60	100	$T_C = 100^\circ\text{C}$, Max (Table 1)
One-Cycle Surge Current (Peak)	I_{TSM}	A	300	1000	2000	60Hz Sine Wave, Non-Repetitive (Fig. 2)
I^2t for Fusing (Max)	I^2t	A ² S	376	4150	16,000	60Hz Sine Wave
Reverse Blocking Voltage (Max)	V_{RRM}	V	200-1600			$T_J = 125^\circ\text{C}$
Leakage Current (Max.)	I_{RRM}	mA	3	5		$T_J = 125^\circ\text{C} @ V_{RRM}$
Forward Voltage Drop (Max.)	V_F	V	1.8 @ 50A	1.25 @ 60A	1.4 @ 100A	$T_J = 25^\circ\text{C}$ (Fig 3)
Isolation Voltage (Min.)	V_{ISOL}	Vrms	2500			Any Terminal-to-Base
Junction Operating Temp. (Range)	T_J	$^\circ\text{C}$	-40 to +150			
Storage Temperature (Range)	T_{STG}	$^\circ\text{C}$	-40 to +150			
Thermal Resistance (case-to-Sink)	$R\theta_{c-s}$	$^\circ\text{C/W}$	0.1	0.07		With Thermal Grease
Thermal Resistance (Junction-to-Case)	$R\theta_{j-c}$	$^\circ\text{C/W}$	1.8	1.25	1.0	Per Device (Table 1)

Table 1
Maximum DC Output Current

CIRCUIT DESIGNATION	MAX. DC OUTPUT CURRENT (A)			
	B48-2T	M50	B48-2T	M5060
483	SB	35	60	100
485	TB	50	60	100
482	*DD	20	35	50
481	CC	35	60	100
NA	CA	35	60	100
484	THC	50	60	100
NA	THA	50	60	100

*Average current at 180° conduction angle

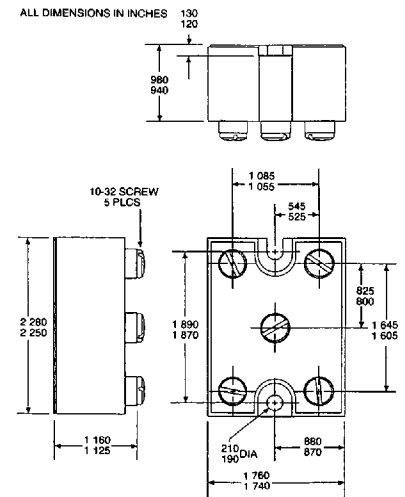
Part Number Designation Code



Circuit Configurations

Circuit Type	Circuit Designations		Circuit Schematics	B48-2T	Case M50 Terminal Locations
	M50	B48-2T			
SINGLE-PHASE BRIDGE	SB	3			
THREE-PHASE BRIDGE	TB	5			
DIODE DOUBLER	DD	2			
CENTER TAP COMMON CATHODE	CC	1			
CENTER TAP COMMON ANODE	CA	N/A			
THREE PHASE COMMON CATHODE HALF WAVE BRIDGE	THC	4			
THREE PHASE COMMON ANODE HALF WAVE BRIDGE	THA	N/A			

M50 Outline/Mounting Dimensions



B48-2T Outline/Mounting Dimensions

