Three-phase Bridge Rectifier Modules

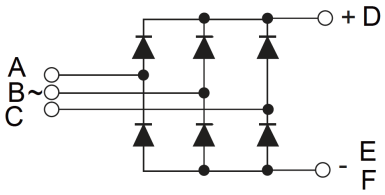
160MT80K thru 160MT160K

Feature

- Package with screw terminals
- Isolation voltage 4000V~
- Blocking voltage up to 1800V
- Low forward voltage drop

Application

- Supplies for DC power equipment
- Input rectifier for PWM inverter
- Battery DC power supplies
- Field supply for DC motors



Maximum value

Symbol	Parameter	Rating					Unit
		160*MT*80*K*	160*MT*120*K*	160*MT*140*K*	160*MT*160*K*	160*MT*180*K*	
VRRM	Reverse peak repetitive voltage	800	1200	1400	1600	1800	V
VRSM	Reverse peak non-repetitive voltage	900	1300	1500	1700	1900	V

Symbol	Test Conditions	Characteristic Values	Unit
I_R	$V_R=V_{RRM}$; $T_{VJ}=25°C$	⩽ 0.2	mA
	$V_R=V_{RRM}$; $T_{VJ}=T_{VJM}$	⩽ 5	
V_F	$I_F=200A$; $T_{VJ}=25°C$	⩽ 1.49	V
V_{TO}	For power-loss calculations only	0.8	V
r_T	$T_{VJ}=T_{VJM}$	5	mΩ
R_{thJC}	per diode	0.73	K/W
	per module	0.12	
R_{thJK}	per diode	0.90	K/W
	per module	0.17	
ds	Creeping distance on surface	10	mm
dA	Creepage distance in air	9.4	mm
a	Max. allowable acceleration	50	m/s^2

http://www.greegoo.com
Peter@greegoo.com

Symbol	Test Conditions	Maximum Ratings	Unit
I_{dav}	T_C=100°C, module	161	A
I_{dav}	T_A=45°C (R_{thCA}=0.6K/W), module	201	A
I_{FSM}	T_{VJ}=45°C t=10ms (50Hz), sine	1340	A
	V_R=0 t=8.3ms (60Hz), sine	1500	
	T_{VJ}=T_{VJM} t=10ms (50Hz), sine	1200	
	V_R=0 t=8.3ms (60Hz), sine	1260	
I^2t	T_{VJ}=45°C t=10ms (50Hz), sine	10200	A^2s
	V_R=0 t=8.3ms (60Hz), sine	9300	
	T_{VJ}=T_{VJM} t=10ms(50Hz), sine	7900	
	V_R=0 t=8.3ms (60Hz), sine	6600	
T_{VJ}		-40..+150	°C
T_{VJM}		150	
T_{stg}		-40..+150	
V_{ISOL}	50/60Hz, RMS t=1min	2500	V~
	I_{ISOL}≤1mA t=1s	4000	
M_d	Mounting torque (M5)	5 ± 15%	Nm
	Terminal connection torque (M5)	5 ± 15%	
Weight	typ.	176	g

Performance Curves

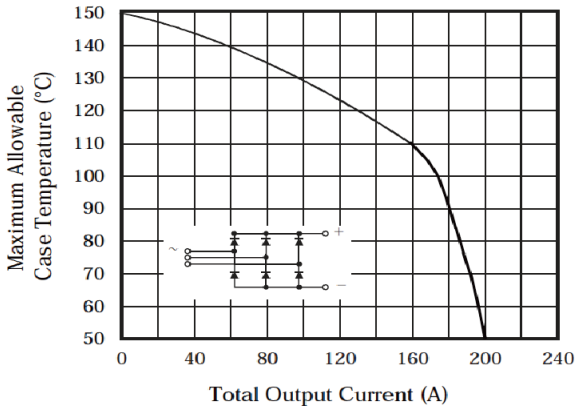


Fig. 1 - Current Ratings Characteristic

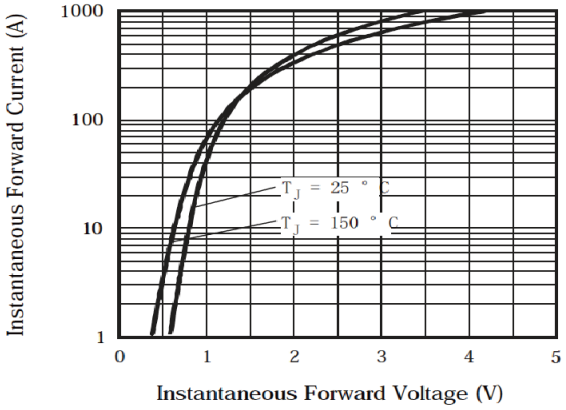


Fig. 2 - Forward Voltage Drop Characteristics

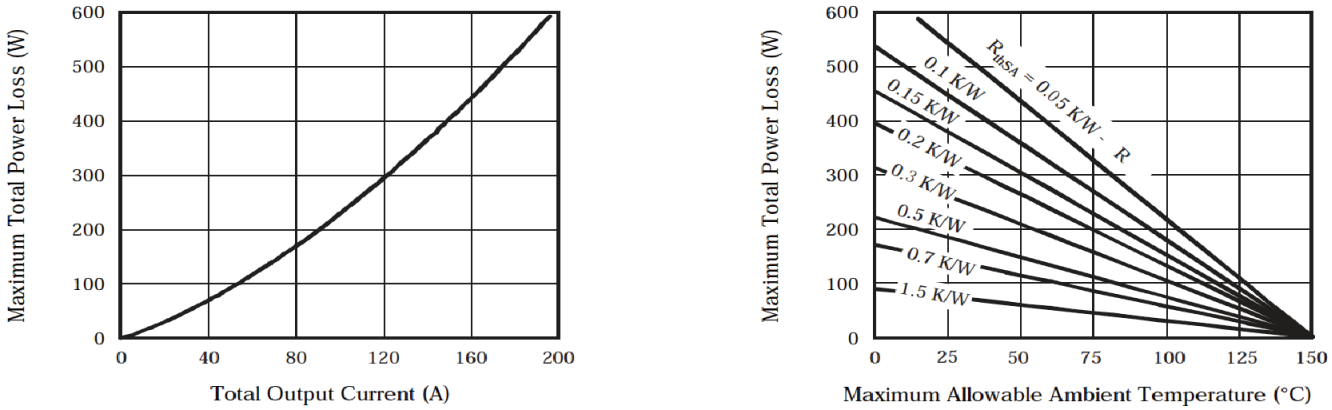


Fig. 3 - Total Power Loss Characteristics

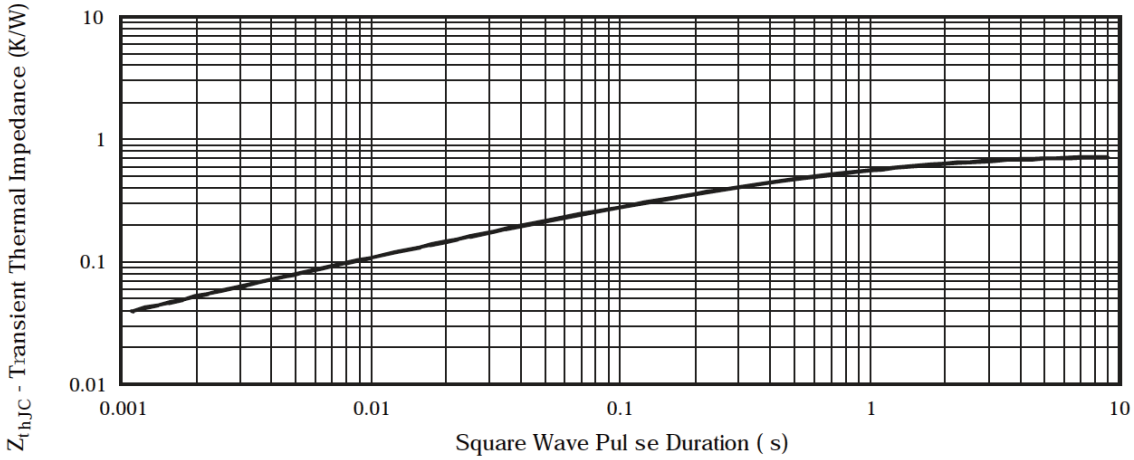


Fig.4 - Thermal Impedance Z_{thJC} Characteristic

Dimensions in mm (1mm=0.0394")