XI'AN IR-PERI Company

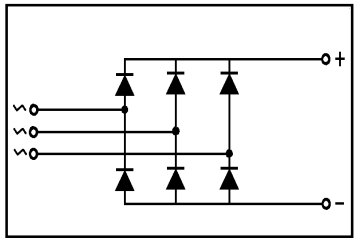
PRELIMINARY

MDS55TG080-160

Diode Modules TG-PAK

Features

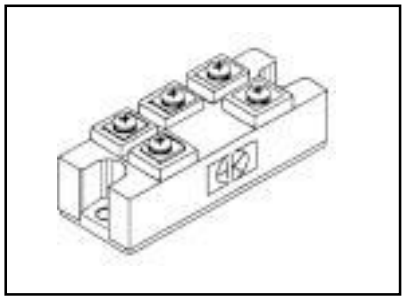
- International standard package
- With DBC ceramic base plate
- Planar passivated chips
- High surge capability
- Complies With RoHS Directive;
- Lead Free;



I_{DAVM} = 55A
V_{RRM} =800-1600V

Benefits

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



Absolute Maximum Ratings

Symbol	Test Conditions	Max.	Units
V_{RRM}		800, 1200,1400,1600	V
I_{DAVM}	T_C=100 °C, module	55	A
I_{FSM}	T_{VJ}=45 °C; t=10ms (50 Hz),sine	660	A
	V_R=0 t=8.3ms (60 Hz),sine	636	A
	T_{VJ}=150 °C; t=10ms (50 Hz),sine	800	A
	V_R=0 t=8.3ms (60 Hz),sine	840	A
I^2t	T_{VJ}=45 °C; t=10ms (50 Hz),sine	2750	A^2s
	V_R=0 t=8.3ms (60 Hz),sine	3150	A^2s
	T_{VJ}=150 °C; t=10ms (50 Hz),sine	2520	A^2s
	V_R=0 t=8.3ms (60 Hz),sine	2750	A^2s
V_{ISOL}	RMS Isolation Voltage, Any Terminal To Case, t=1 min	3000	V
T_{VJ}		-40 to +150	°C
T_{VJM}		150	
T_{STG}		-40 to +125	

Termal / Mechanical Characteristics

	Parameter	Typ.	Max.	Units
$R_{\theta JS}$	Termal Resistance, Junction-to- Sink DC	-	0.5	
$R_{\theta JC}$	Termal Resistance, Junction-to- Case DC	-	0.4	°C/W
$R_{\theta CS}$	Termal Resistance, Csar-to- Sink- Module	0.1	-	
	Mouting Torque, Case-to-Heatsink	-	4.0	N.m
	Mouting Torque, Case-to-Terminal 1,2 & 3	-	3.0	
	Weight of Module	180	-	g

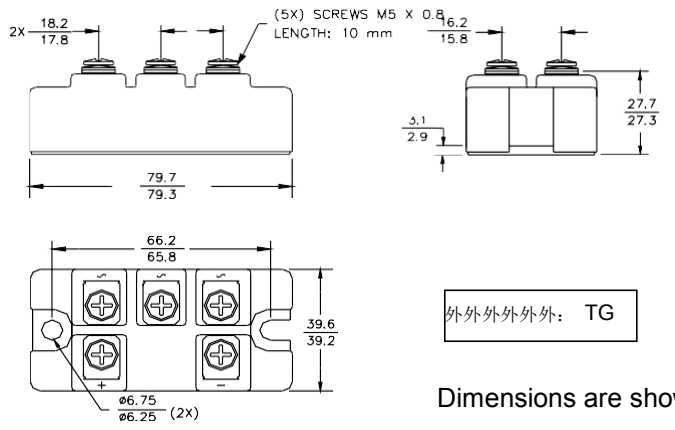
Electrical Characteristics (unless otherwise specified)

	Parameter	Min.	Typ.	Max.	Units	Conditions
I_R	Diode Leaking Current	-	-	0.5	mA	T_{VJ}=25 °C V_R=V_{RRM}
		-	-	5	mA	T_{VJ}=125 °C V_R=V_{RRM}
V_F	Diode Forward Voltage	-	-	1.28	V	I_F=80A; T_{VJ}=25 °C
V_{TO}	For power-loss calculations only	-	-	0.8	V	
r_T		-	-	6.0	mΩ	T_{VJ}=125 °C

Voltage Ratings

Voltage Code	V_{RRM} (V)	V_{RSM}(V)	I_{RRM} (mA) T_J=25°C
080	800	900	1.0
120	1200	1300	1.0
140	1400	1500	1.0
160	1600	1700	1.0

Case Outline - TG-pak



Dimensions are shown in millimeters