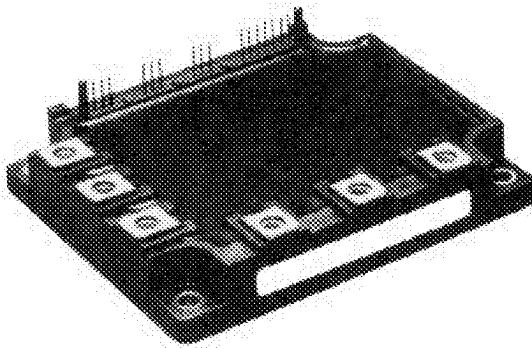
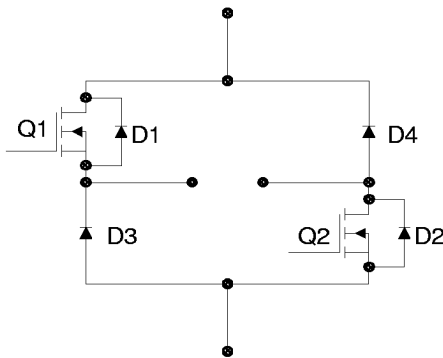


**Description:**

Powerex Mosfet modules are designed for use in switching applications. Each Module consists of sixteen mosfets, and four diodes in an asymmetrical half bridge configuration. All components are potted in a sealed chamber and are electrically isolated from the heat sinking base plate, offering simplified system assembly and thermal management.

Features:

- ◆ Low Drive Power
- ◆ Isolated baseplate for easy heat sinking
- ◆ High Capacity Diodes (D3 & D4)
- ◆ Massively Paralleled Mosfets
- ◆ Low $r_{DS(on)}$
- ◆ Free wheel diodes
- ◆ Package can be modified to suit customer specifications

**Applications:**

- ◆ Switching Power Supplies
- ◆ Switching Amplifiers
- ◆ Motion/Servo Control

Ordering Information:

Contact Powerex Custom Modules

Maximum Ratings, Tc=25°C unless otherwise specified

Symbol	Parameter	Conditions	Ratings	Units
V _{DSS}	Drain-Source Voltage	V _{GS} =0V	900	Volts
V _{GSS}	Gate Source Voltage	V _{DS}	±30	Volts
I _D	Drain Current		100	Amperes
I _{DM}	Drain Current (Pulsed)		336	Amperes
I _F	Forward current D3, D4	TC=25°C	150	Amperes
I _{FM}	Forward surge current D3, D4	Pulse	300	Amperes
Viso	Isolation Voltage	Main terminal to Base, AC for 1 minute	2500	Volts
Tch	Channel Temperature		-55 ~ +150	°C

Electrical Characteristics, Tch=25°C unless otherwise specified

Symbol	Parameter	Test Conditions	Min	Typ.	Max	Units
V(BR) DSS	Drain-source breakdown voltage	Id=8mA, VGS=0V	900	-	-	V
V(BR)GSS	Gate-source breakdown voltage	IGS=±800μA, VDS=0V	±30	-	-	V
I _{GSS}	Gate leakage current	VGS=±25V, VDS=0V	-	-	±80	μA
I _{DSS}	Drain Current	VDS=900V, VGS=0V	-	-	8	mA
V _{GS(th)}	Gate-source threshold voltage	ID=8mA, vds=10V	2	3	4	Volts
r _{DS(ON)}	Gate-source on-state resistance	Id=56A, vgs=10V	-	.078	.106	Ω
V _{DS(ON)}	Drain-source on-state voltage	Id=56A, VGS=10V	-	4.41	5.95	Volts
V _F	Diode forward voltage D3,D4	IF=150A			3.5	Volts
C _{ISS}	Input capacitance	VDS=25V, VGS=0V, F=1MHz		.023		μF
C _{OSS}	Output capacitance			.002		μF
C _{RSS}	Reverse transfer capacitance			400		pF
V _{SD}	Source – Drain Voltage	Is= 56A, VGS=0V		1.0	1.5	Volts
R _{th(ch-c)}	Thermal Resistance	Per mosfet	-	0.031		°C/W
R _{th(jc)}	Thermal Resistance	Per diode	-	0.095		°C/W