



PRELIMINARY

SOLID STATE DEVICES, INC.

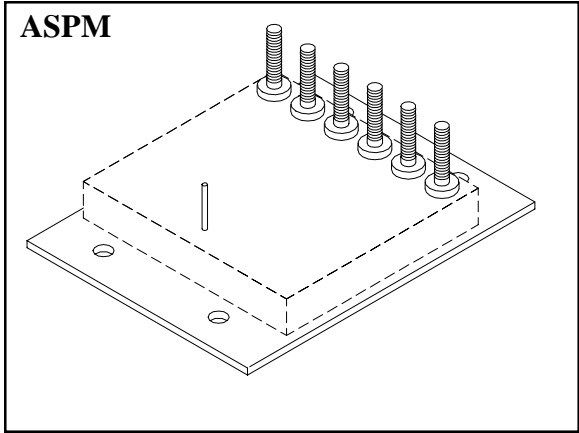
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DESIGNER'S DATA SHEET

SPMQ461-01

**200 AMP/600 VOLTS
HALF BRIDGE
IGBT POWER MODULE
FOR SPACE APPLICATIONS**

- FEATURES:**
- High Current Switching for Motor Drives and Inverters for Space Applications.
 - Push-Pull Configuration with Freewheeling Diodes.
 - Low Saturation Voltage at High Currents.
 - Low Mechanical Stress Design.
 - Hermetic Sealed Construction for Aerospace Applications.
 - Excellent Thermal Management.
 - Full Power Screened Hermetic Discretes.
 - TX, TXV, and S-Level Screening Available.
 - Consult Factory for:
 - Faster Switching Speeds;
 - Other Bridge Configurations and Terminal Styles.

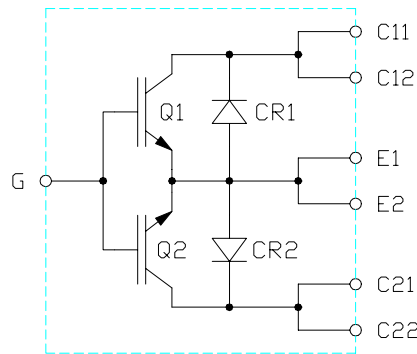


MAXIMUM RATINGS

CHARACTERISTIC	SYMBOL	VALUE	UNIT
Collector to Emitter Voltage, per Leg	V_{CES}	600	Volts
Gate to Collector Voltage	V_{GES}	± 20	Volts
Continuous Collector Current, per Leg $T_B = 25^\circ C$ $T_B = 90^\circ C$	I_{C1} I_{C2}	200 100	Amps
Pulse Collector Current, per Leg $\frac{1}{}$	I_{CM}	300	Amps
Clamped Inductive Load Current, per Leg ($T_B = 125^\circ C$, $V_{CC} = 480V$, $V_{GE} = 15V$, $L = 30\mu H$, $R_G = 10\Omega$)	I_{LM}	100	Amps
Reverse Voltage Avalange Energy, per Leg $\frac{1}{}$ ($I_C = 100A$)	E_{ARV}	5.6	mJ
Operating and Storage Temperature	$T_{OP} \& T_{STG}$	-55 TO +150	$^\circ C$
Thermal Resistance, Junction to Base, per Leg	θ_{JB}	0.28	$^\circ C/W$
Total Module Dissipation, per Leg @ $T_B = 25^\circ C$ Dissipation Derating from $T_B = 25^\circ C$ to $T_B = 150^\circ C$, per Leg	P_{D1} P_{D2}	625 5	W W/ $^\circ C$

$\frac{1}{}$ Pulse Duration Limited by T_{JMAX} ; Repetative Rating

ELECTRICAL SCHEMATIC



NOTE: All specifications are subject to change without notification. SCD's for these devices should be reviewed by SSDI prior to release.

DATA SHEET #: PM0002B

