TECHNICAL DATA
DATA SHEET 5399, REV. -

HERMETIC RAD HARD POWER MOSFET

FEATURES:

- **Low RDS(on)**
- **Single Event Effect (SEE) hardened, LET 55, Range: 90µm**
  - **VGS = -15V, VDS = 250V**
  - **VGS = -20V, VDS = 160V**
- **Total Ionization Dose (TID) hardened, 100kRad**
- **Surface mount SMD-2 package**
- **Near equivalent to IRHNA67260**

MAXIMUM RATINGS

ALL RATINGS ARE AT T_C = 25°C UNLESS OTHERWISE SPECIFIED.

RATING	SYMBOL	MIN.	TYP.	MAX.	UNITS
DRAIN TO SOURCE VOLTAGE	V_{DS}	-	-	250	Volts
GATE TO SOURCE VOLTAGE	V_{GS}	-	-	±20	Volts
ON-STATE DRAIN CURRENT	I_D	-	-	54	Amps
PULSED DRAIN CURRENT (LIMITED BY T_{JMAX})	I_{DM}	-	-	214	Amps
OPERATING AND STORAGE TEMPERATURE	T_{OP}/T_{STG}	-55	-	+150	°C
TOTAL DEVICE DISSIPATION	P_D	-	-	250	Watts
THERMAL RESISTANCE, JUNCTION TO CASE	R_{thJC}	-	-	0.5	°C/W
SINGLE PULSE AVALANCHE (LIMITED BY T_{JMAX})	E_{AS}	-	380	-	mJ

ELECTRICAL CHARACTERISTICS

CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNITS
DRAIN TO SOURCE BREAKDOWN VOLTAGE V_{GS} = 0V, I_D = 250µA	B_{VDSS}	250	-	-	Volts
STATIC DRAIN TO SOURCE ON STATE RESISTANCE V_{GS} = 10V, I_D = 34A	$R_{DS(ON)}$	-	-	0.03	Ω
GATE THRESHOLD VOLTAGE $V_{DS} = V_{GS}$, I_D = 1mA	$V_{GS(th)}$	2.0	-	4.0	Volts
ZERO GATE VOLTAGE DRAIN CURRENT V_{DS} = 200V, V_{GS} = 0V	I_{DSS}	-	-	25	µA
GATE TO SOURCE LEAKAGE FORWARD V_{GS} = 20V GATE TO SOURCE LEAKAGE REVERSE V_{GS} = -20V	I_{GSS}	- -	- -	100 -100	nA
TRANSCONDUCTANCE V_{DS} = 20V, I_{DS} = 34A		-	22	-	S
TURN ON DELAY TIME $V_{DD} = 0.5V_{DS}$, RISE TIME I_D = 34A, TURN OFF DELAY TIME R_G = 4.7Ω FALL TIME	$t_{d(ON)}$ t_r $t_{d(OFF)}$ t_f	- - - -	- - - -	80 80 130 80	nsec
DIODE FORWARD VOLTAGE I_S =54A	V_{SD}	-	-	1.2	Volts
REVERSE RECOVERY TIME If = 50A, di/dt = 100A/µs	t_{rr}	-	-	700	nsec
INPUT CAPACITANCE V_{GS} = 0 V OUTPUT CAPACITANCE V_{DS} = 100 V REVERSE TRANSFER CAPACITANCE f = 1.0MHz	C_{iss} C_{oss} C_{rss}	-	11100 696 11	-	pF
GATE RESISTANCE	R_G	-	0.9	-	Ω
TOTAL GATE CHARGE V_{DD} =0.5V_{DS}, I_D = 54A, V_{GS} = 10V	Q_G	-	-	180	nC

****NOTE:** *This product is subject to the International Traffic in Arms Regulations (ITAR), 22 C.F.R. Parts 120 - 130, and may not be exported without the appropriate U.S. Department of State authorization.*

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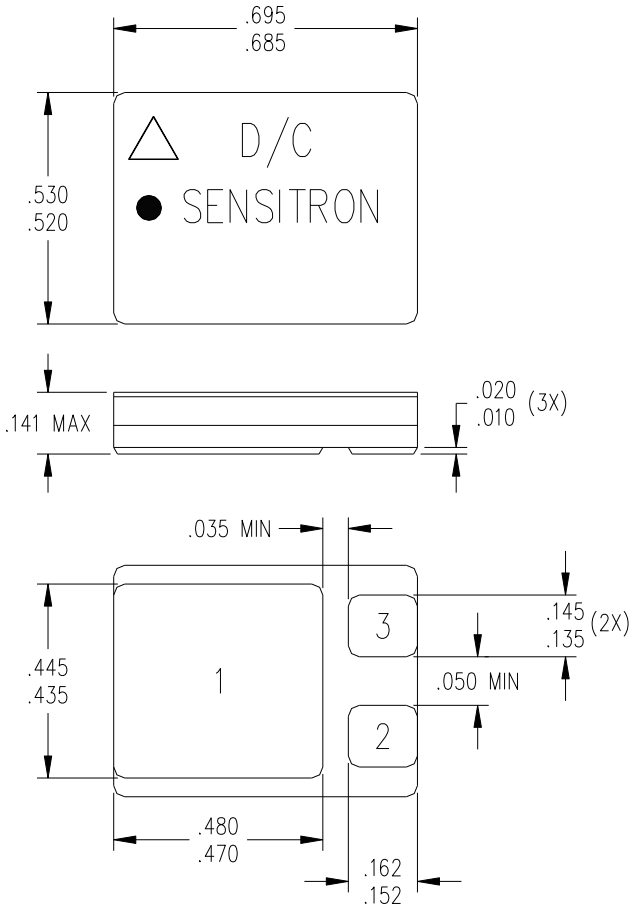
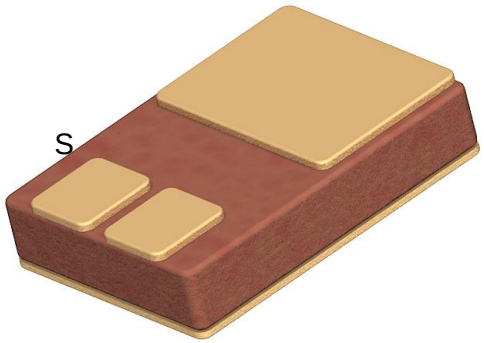
MECHANICAL DIMENSIONS: in Inches / mm





SMD-2

DEVICE TYPE	PIN-1	PIN-2	PIN-3
N-CHANNEL MOSFET SMD-2 PACKAGE	DRAIN	GATE	SOURCE