

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

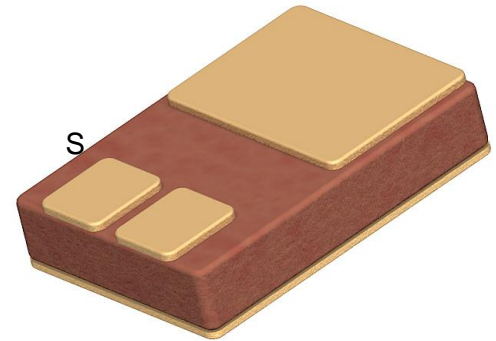
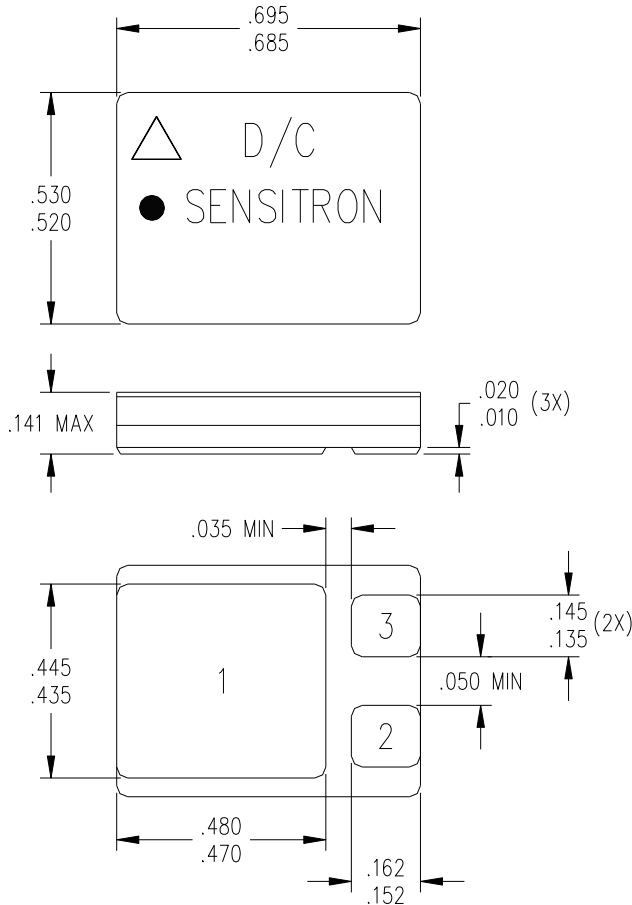
ELECTRICAL CHARACTERISTICS

CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNITS
DRAIN TO SOURCE BREAKDOWN VOLTAGE V _{GS} = 0V, I _D = 250µA	B _{VDS}	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	I _{GSS}	-	-	100	nA
GATE TO SOURCE LEAKAGE REVERSE V _{GS} = -20V		-	-	-100	
TRANSCONDUCTANCE V _{DS} = 20V, I _{DS} = 34A		-	22	-	S
TURN ON DELAY TIME V _{DD} = 0.5V _{DS} , RISE TIME I _D = 34A,	t _{d(ON)} t _r	-	-	80	nsec
TURN OFF DELAY TIME R _G = 4.7Ω	t _{d(OFF)}	-	-	130	
FALL TIME	t _f	-	-	80	
DIODE FORWARD VOLTAGE I _S = 54A	V _{SD}	-	-	1.2	Volts
REVERSE RECOVERY TIME I _f = 50A, di/dt = 100A/µs	t _{rr}	-	-	700	nsec
INPUT CAPACITANCE V _{GS} = 0 V	C _{iss}	-	11100	-	pF
OUTPUT CAPACITANCE V _{DS} = 100 V	C _{oss}	-	696	-	
REVERSE TRANSFER CAPACITANCE f = 1.0MHz	C _{rss}	-	11	-	
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.

TECHNICAL DATA
DATA SHEET 5399, REV. -

MECHANICAL DIMENSIONS: in Inches / mm



SMD-2

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

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