

TECHNICAL DATA  
DATA SHEET 747, REV. -

## HERMETIC POWER MOSFET N-CHANNEL

### FEATURES:

- 600 Volt, 0.60 Ohm, 11A MOSFET
- Isolated Hermetic Metal Package
- Fast Switching
- Low  $R_{DS(on)}$
- Electrically Equivalent to IRFPC50

### MAXIMUM RATINGS

ALL RATINGS ARE AT  $T_C = 25^\circ\text{C}$  UNLESS OTHERWISE SPECIFIED.

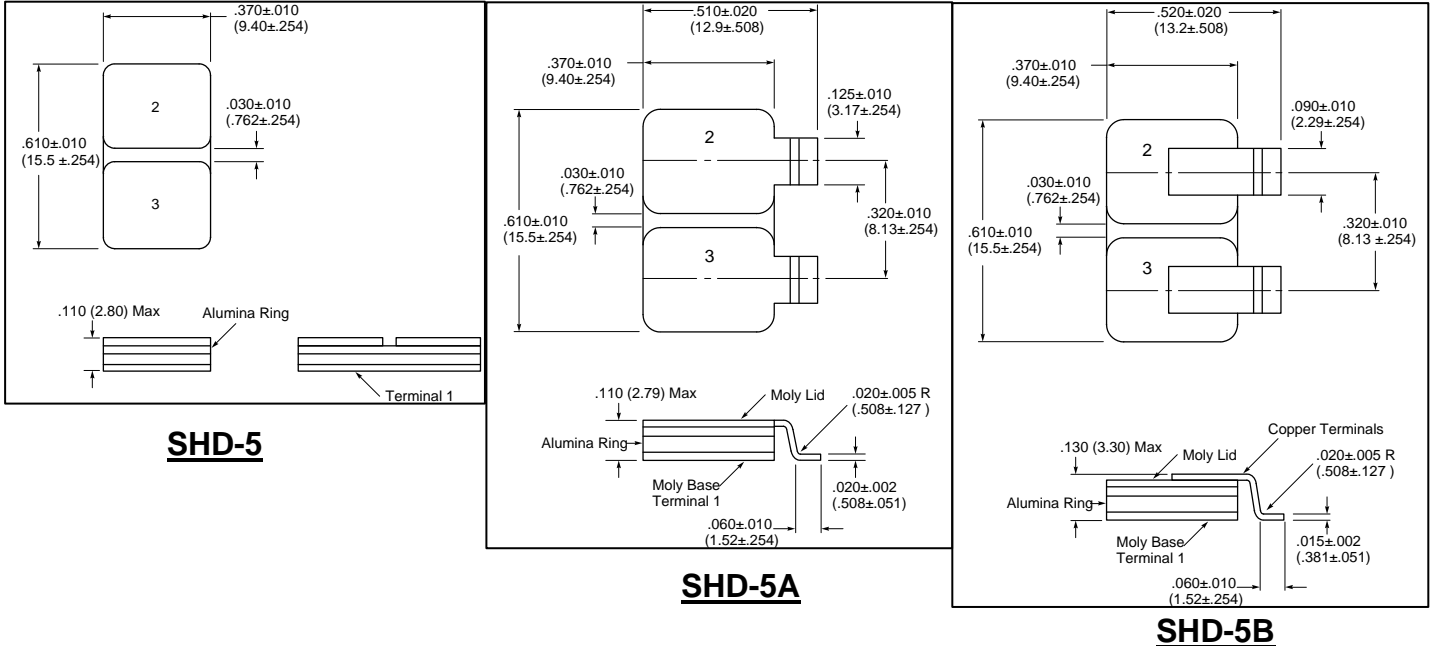
RATING	SYMBOL	MIN.	TYP.	MAX.	UNITS
GATE TO SOURCE VOLTAGE	$V_{GS}$	-	-	$\pm 20$	Volts
ON-STATE DRAIN CURRENT	$I_D$	-	-	11	Amps
PULSED DRAIN CURRENT @ $T_C = 25^\circ\text{C}$	$I_{DM}$	-	-	44	Amps
OPERATING AND STORAGE TEMPERATURE	$T_J/T_{STG}$	-55	-	+150	$^\circ\text{C}$
TOTAL DEVICE DISSIPATION @ $T_C = 25^\circ\text{C}$	$P_D$	-	-	430	Watts
THERMAL RESISTANCE, JUNCTION TO CASE	$R_{\theta JC}$	-	-	0.29	$^\circ\text{C/W}$

### ELECTRICAL CHARACTERISTICS

DRAIN TO SOURCE BREAKDOWN VOLTAGE $V_{GS} = 0V, I_D = 1.0 \text{ mA}$	$BV_{DSS}$	600	-	-	Volts
STATIC DRAIN TO SOURCE ON STATE RESISTANCE $V_{GS} = 10V, I_D = 6.0A$	$R_{DS(ON)}$	-	-	0.60	$\Omega$
GATE THRESHOLD VOLTAGE $V_{DS} = V_{GS}, I_D = 250\mu A$	$V_{GS(th)}$	2.0	-	4.0	Volts
FORWARD TRANSCONDUCTANCE $V_{DS} = 100V, I_{DS} = 6.0A$	$g_{fs}$	5.7	-	-	$S(1/\Omega)$
ZERO GATE VOLTAGE DRAIN CURRENT $V_{DS} = \text{Max. rating}, V_{GS} = 0V, T_J = 25^\circ\text{C}$	$I_{DSS}$	-	-	100	$\mu A$
ZERO GATE VOLTAGE DRAIN CURRENT $V_{DS} = 0.8 \times \text{Max. rating}, V_{GS} = 0V, T_J = 125^\circ\text{C}$	$I_{DSS}$	-	-	500	$\mu A$
GATE TO SOURCE LEAKAGE FORWARD $V_{GS} = 20V$ GATE TO SOURCE LEAKAGE REVERSE $V_{GS} = -20V$	$I_{GSS}$	-	-	100 -100	nA
TURN ON DELAY TIME RISE TIME TURN OFF DELAY TIME FALL TIME $V_{DD} = 300V, I_D = 11A, R_G = 6.2\Omega$	$t_{d(ON)}$ $t_r$ $t_{d(OFF)}$ $t_f$	-	18 37 88 36	-	nsec
DIODE FORWARD VOLTAGE $T_C = 25^\circ\text{C}, I_S = 11A, V_{GS} = 0V$	$V_{SD}$	-	-	1.4	Volts
REVERSE RECOVERY TIME $T_J = 25^\circ\text{C}, I_F = 11A, di/dt = 100A/\mu\text{sec}$	$t_{rr}$	-	550	830	nsec
INPUT CAPACITANCE OUTPUT CAPACITANCE REVERSE TRANSFER CAPACITANCE $V_{GS} = 0V, V_{DS} = 25V, f = 1.0\text{MHz}$	$C_{iss}$ $C_{oss}$ $C_{rss}$	-	2700 300 61	-	pF

**SENSITRON**  
**DATA SHEET 747,**  
**REVISION -**

**MECHANICAL DIMENSIONS: in Inches / mm**



**PINOUT TABLE**

DEVICE TYPE	PIN 1	PIN 2	PIN 3
MOSFET, SURFACE MOUNT SHD-5, 5A, 5B PACKAGE	DRAIN	SOURCE	GATE

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