

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.

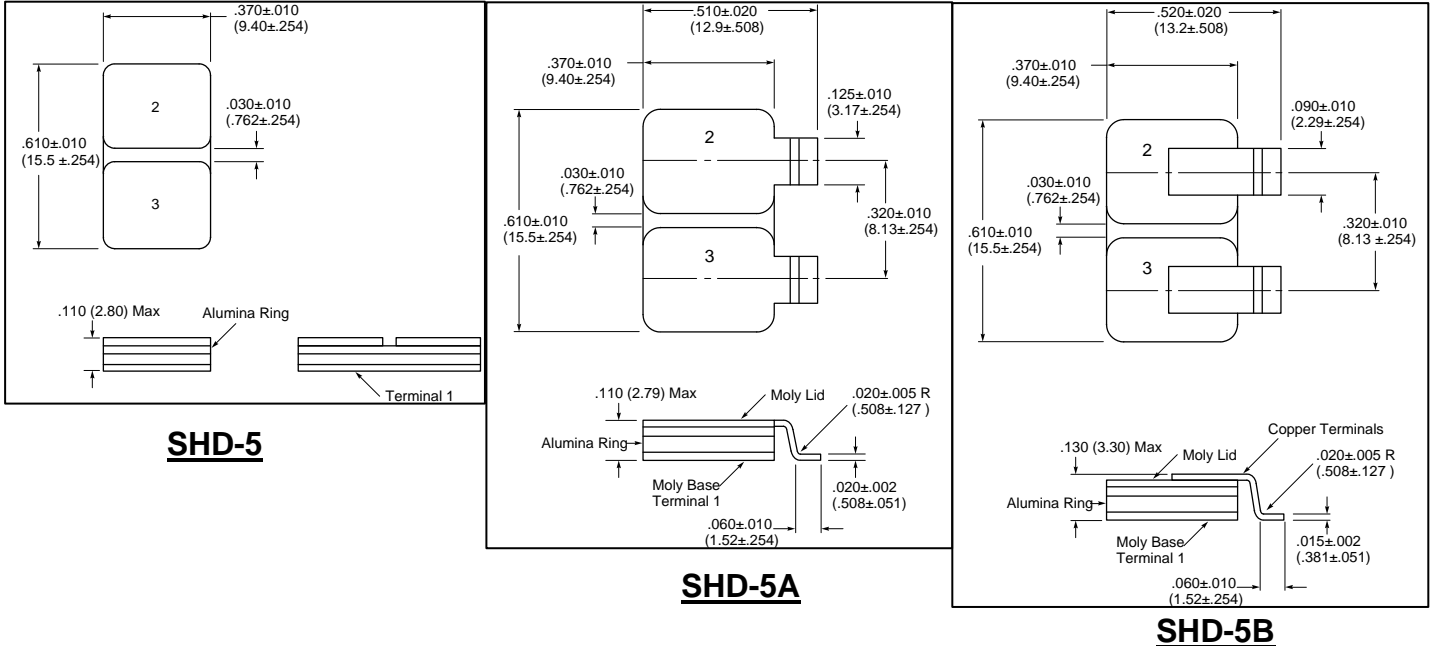
RATING	SYMBOL	MIN.	TYP.	MAX.	UNITS
GATE TO SOURCE VOLTAGE	V_{GS}	-	-	± 20	Volts
ON-STATE DRAIN CURRENT	I_D	-	-	11	Amps
PULSED DRAIN CURRENT @ $T_C = 25^\circ\text{C}$	I_{DM}	-	-	44	Amps
OPERATING AND STORAGE TEMPERATURE	T_J/T_{STG}	-55	-	+150	$^\circ\text{C}$
TOTAL DEVICE DISSIPATION @ $T_C = 25^\circ\text{C}$	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	Ω
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	μA
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	μA
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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