

TECHNICAL DATA  
DATA SHEET 722, REV. -

## HERMETIC POWER MOSFET P-CHANNEL

**FEATURES:**

- -100 Volt, 0.065 Ohm, -20A MOSFET
- Fast Switching
- Low  $R_{DS(on)}$
- Electrically Equivalent to IRF5210

**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
CONTINUOUS DRAIN CURRENT $V_{GS} = -10\text{V}, T_C = 25^\circ\text{C}$ $V_{GS} = -10\text{V}, T_C = 100^\circ\text{C}$	$I_D$	-	-	-20 -20	Amps
OPERATING AND STORAGE TEMPERATURE	$T_{OP}/T_{STG}$	-55	-	+150	$^\circ\text{C}$
THERMAL RESISTANCE, JUNCTION TO CASE	$R_{thJC}$	-	-	1.3	$^\circ\text{C}/\text{W}$
TOTAL DEVICE DISSIPATION @ $T_C = 25^\circ\text{C}$	$P_D$	-	-	95	Watts

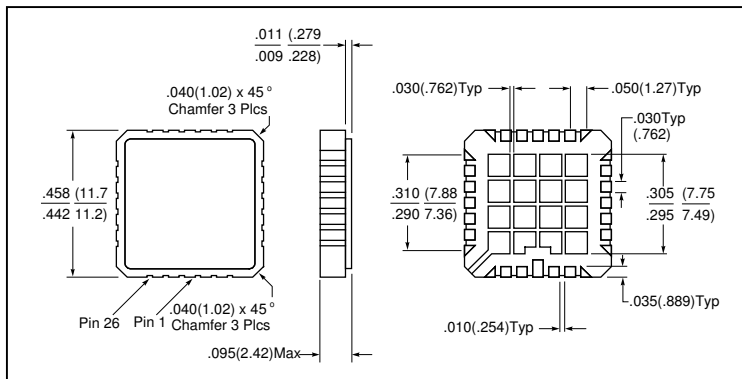
**ELECTRICAL CHARACTERISTICS**

DRAIN TO SOURCE BREAKDOWN VOLTAGE $V_{GS} = 0\text{V}, I_D = -250\mu\text{A}$	$BV_{DSS}$	-100	-	-	Volts
STATIC DRAIN TO SOURCE ON STATE RESISTANCE $V_{GS} = -10\text{V}, I_D = 0.6 \times \text{rated } I_D$	$R_{DS(ON)}$	-	-	0.06	$\Omega$
GATE THRESHOLD VOLTAGE $V_{DS} = V_{GS}, I_D = -250\mu\text{A}$	$V_{GS(th)}$	-2.0	-	-4.0	Volts
FORWARD TRANSCONDUCTANCE $V_{DS} \geq I_{D(ON)} \times R_{DS(ON)} \text{ Max.}, I_{DS} = 0.6 \times I_D$	$g_{fs}$	10	-	-	$\text{S}(1/\Omega)$
ZERO GATE VOLTAGE DRAIN CURRENT $V_{DS} = \text{Max. Rating}, V_{GS} = 0\text{V}$ $V_{DS} = 0.8 \times \text{Max. Rating}, V_{GS} = 0\text{V}, T_J = 125^\circ\text{C}$	$I_{DSS}$	-	-	-25 -250	$\mu\text{A}$
GATE TO SOURCE LEAKAGE FORWARD $V_{GS} = 20\text{V}$ GATE TO SOURCE LEAKAGE REVERSE $V_{GS} = -20\text{V}$	$I_{GSS}$	-	-	100 -100	nA
TOTAL GATE CHARGE $V_{GS} = -10\text{V}$ , GATE TO SOURCE CHARGE $V_{DS} = -80\text{V}$ , GATE TO DRAIN CHARGE $I_D = .5 \times \text{rated } I_D$	$Q_g$ $Q_{gs}$ $Q_{gd}$	-	-	180 25 97	nC
TURN ON DELAY TIME $V_{DD} = -50\text{V}$ , RISE TIME $I_D = .5 \times I_D$ , TURN OFF DELAY TIME $R_G = 2.5\Omega$ FALL TIME	$t_{d(ON)}$ $t_r$ $t_{d(OFF)}$ $t_f$	-	17 86 79 81	-	nsec
DIODE FORWARD VOLTAGE $T_J = 25^\circ\text{C}, I_S = .5 \times I_D$ , $V_{GS} = 0\text{V}$	$V_{SD}$	-	-	-1.6	Volts
REVERSE RECOVERY TIME $T_J = 25^\circ\text{C}$ , $I_f = I_D$ , $di_f/ds = 100\text{A}/\mu\text{sec}$ ,	$t_{rr}$ $Q_{rr}$	-	170 1.2	260 1.8	nsec $\mu\text{C}$
INPUT CAPACITANCE $V_{GS} = 0\text{V}$ OUTPUT CAPACITANCE $V_{DS} = -25\text{V}$ REVERSE TRANSFER CAPACITANCE $f = 1.0\text{MHz}$	$C_{iss}$ $C_{oss}$ $C_{rss}$	-	2700 790 400	-	pF

Note: Continuous current ratings are limited by package.

**SENSITRON**  
**DATA SHEET 722**  
**REVISION -**

**MECHANICAL DIMENSIONS: in Inches / m**



**LCC-28T**

**PINOUT TABLE**

	PINS(S) 1 & 15-28	PINS 5-11	PINS 2, 3, 13, & 14
MOSFET - LCC-28T	SOURCE	DRAIN	GATE

**TECHNICAL DATA**

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