

TECHNICAL DATA  
DATA SHEET 4305, REV -

## HERMETIC P-CHANNEL JFET

- FEATURES:**
- 30 V, 75 Ω, 30 mA P-Channel JFET
  - Hermetically Sealed
  - Surface Mount Package: Ceramic LCC-3

### MAXIMUM RATINGS

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

RATING	SYMBOL	MIN.	TYP.	MAX.	UNITS
GATE TO SOURCE VOLTAGE $I_D = 1\mu\text{A}$ , $V_{DS} = 0\text{V}$	$V_{GS}$	-	-	30	V
SATURATED DRAIN CURRENT $V_{GS} = 0\text{V}$ , $V_{DS} = -18\text{V}$	$I_{DSS}$	-30	-	-90	mA
GATE TO DRAIN BREAKDOWN VOLTAGE	$BV_{GD}$	-	-	30	V
OPERATING AND STORAGE TEMPERATURE	$T_{OP}/T_{STG}$	-55	-	+175	°C
TERMAL RESISTANCE JUNCTION TO CASE	$R_{θJC}$	-	-	300	°C/W
TOTAL DEVICE DISSIPATION @ $T_C = 25^\circ\text{C}$	$P_D$	-	-	0.5	W

### ELECTRICAL CHARACTERISTICS

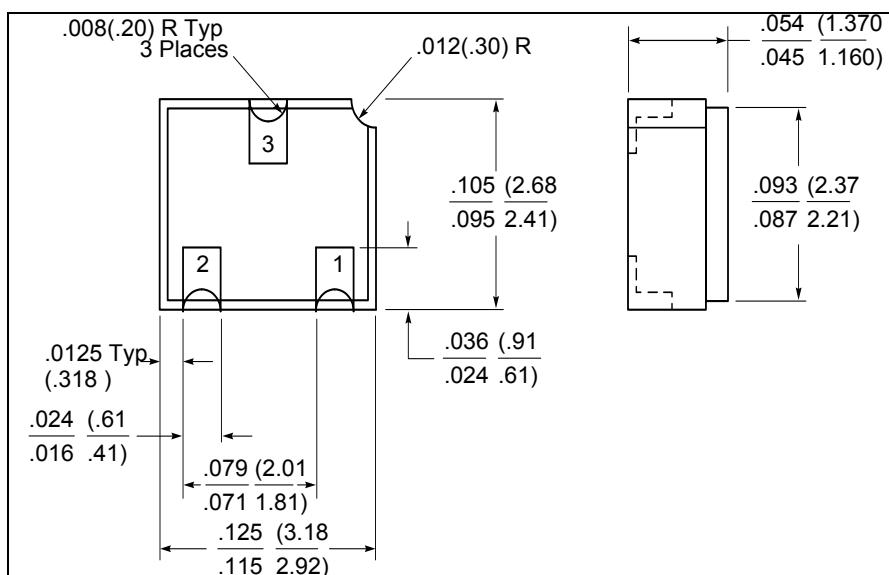
DRAIN TO SOURCE ON STATE RESISTANCE $V_{GS} = 0\text{V}$ , $I_D = -1\text{ mA}$	$R_{DS(ON)}$	-	-	75	Ω
GATE SOURCE CUT OFF VOLTAGE $V_{DS} = -15\text{V}$ , $I_D = -1\text{ nA}$	$V_{GS(OFF)}$	-	5	10	V
COMMON SOURCE TRANSCONDUCTANCE $V_{DS} = -15\text{V}$ , $I_D = -1\text{ mA}$	$g_{fs}$	-	4.5	-	S(1/Ω)
DRAIN CUT OFF CURRENT, $V_{DS} = -15\text{V}$ , $V_{GS} = 12\text{V}$ $T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$	$I_{D(OFF)}$	-	- 10	- 500	pA
-		-	- 0.02	- 1	μA
GATE REVERSE CURRENT $V_{GS} = 20\text{V}$ $T_A = 125^\circ\text{C}$	$I_{GSS}$	-	5 0.01	500 1	pA μA
TURN ON DELAY TIME $V_{DD} = -10\text{V}$ , RISE TIME $I_D = -15\text{ mA}$ , TURN OFF DELAY TIME $R_G = 100\Omega$ , FALL TIME $V_{GS} = 20\text{V}$	$t_{d(ON)}$ $t_r$ $t_{d(OFF)}$ $t_f$	-	6 10 6 15	-	ns
GATE SOURCE FORWARD VOLTAGE $I_G = -1\text{ mA}$ $V_{DS} = 0\text{V}$	$V_{GS(F)}$	-	- 0.7	- 1	V
INPUT CAPACITANCE $V_{GS} = 0\text{V}$ , $V_{DS} = -15\text{V}$ , $f = 1\text{MHz}$	$C_{iss}$	-	20	25	pF
REVERSE TRANSFER CAPACITANCE $V_{GS} = 12\text{V}$ , $V_{DS} = 0\text{V}$ , $f = 1\text{MHz}$	$C_{rss}$	-	5	7	pF

SENSITRON

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## MECHANICAL DIMENSIONS - in inches / mm

LCC-3

## PINOUT TABLE

DEVICE TYPE	PIN 1	PIN 2	PIN 3
P Channel JFET	Gate	Source	Drain

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