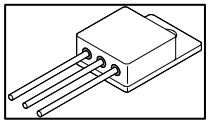
TECHNICAL DATA
DATA SHEET 271, REV. A

HERMETIC POWER MOSFET
N-CHANNEL



DESCRIPTION: 200 VOLT, 0.105 OHM, 27.4 A MOSFET IN A HERMETIC TO-254 PACKAGE.

(add suffix S for up-screening to JTX Level – 2N7225S)

MAXIMUM RATINGS

ALL RATINGS ARE AT T_A = 25°C UNLESS OTHERWISE SPECIFIED.

RATING	SYMBOL	MIN.	TYP.	MAX.	UNITS
GATE TO SOURCE VOLTAGE	V_{GS}	-	-	±20	Volts
CONTINUOUS DRAIN CURRENT V_{GS}=10V, T_C = 25°C V_{GS}=10V, T_C = 100°C	I_D	-	-	27.4 17	Amps
PULSED DRAIN CURRENT @ T_C = 25°C	I_{DM}	-	-	110	Amps
OPERATING AND STORAGE TEMPERATURE	T_{OP}/T_{STG}	-55	-	150	°C
TERMAL RESISTANCE JUNCTION TO CASE	$R_{\theta JC}$	-	-	0.83	°C/W
TOTAL DEVICE DISSIPATION @ T_C = 25°C	P_D	-	-	150	Watts

ELECTRICAL CHARACTERISTICS

DRAIN TO SOURCE BREAKDOWN VOLTAGE V_{GS} = 0V, I_D = 1.0mA	BV_{DSS}	200	-	-	Volts
DRAIN TO SOURCE ON STATE RESISTANCE V_{GS} = 10V, I_D = 17A V_{GS} = 10V, I_D = 27.4A	$R_{DS(ON)}$	-	-	 0.100 0.105	Ω
GATE THRESHOLD VOLTAGE V_{DS} = V_{GS}, I_D = 250μA	$V_{GS(th)}$	2.0	-	4.0	Volts
FORWARD TRANSCONDUCTANCE V_{DS} ≥ 15V, I_{DS} = 17A	g_{fs}	9.0	-	-	S(1/Ω)
ZERO GATE VOLTAGE DRAIN CURRENT V_{DS} = 0.8xMax. Rating, V_{GS} = 0V V_{DS} = 0.8xMax. Rating V_{GS} = 0V, T_J = 125°C	I_{DSS}	-	-	 25 250	μA
GATE TO SOURCE LEAKAGE FORWARD @ RATED GATE TO SOURCE LEAKAGE REVERSE V_{GS}	I_{GSS}	-	-	100 -100	nA
TOTAL GATE CHARGE V_{GS} = 10 VOLTS GATE TO SOURCE CHARGE 50% RATED V_{DS} GATE TO DRAIN CHARGE RATED I_D	Q_g Q_{gs} Q_{gd}	55 8.0 30	-	115 22 60	nC
TURN ON DELAY TIME V_{DD} = 100V RISE TIME RATED I_D TURN OFF DELAY TIME R_G = 2.35Ω FALL TIME	$t_{d(ON)}$ t_r $t_{d(ON)}$ t_f	-	-	35 190 170 130	nsec
DIODE FORWARD VOLTAGE T_J = 25°C, I_S = 27.4A, V_{GS} = 0V	V_{SD}	-	-	1.9	Volts
DIODE REVERSE RECOVERY TIME T_J = 25°C REVERSE RECOVERY CHARGE I_f = RATED ID di/dt = 100A/sec	t_{rr} Q_{rr}	-	-	950 9.0	nsec μC
INPUT CAPACITANCE V_{GS} = 0 VOLTS OUTPUT CAPACITANCE V_{DS} = 25 VOLTS	C_{iss} C_{oss}	-	3500 700	-	pF

REVERSE TRANSFER CAPACITANCE	f = 1 MHz	C_{rss}		110		

SENSITRON

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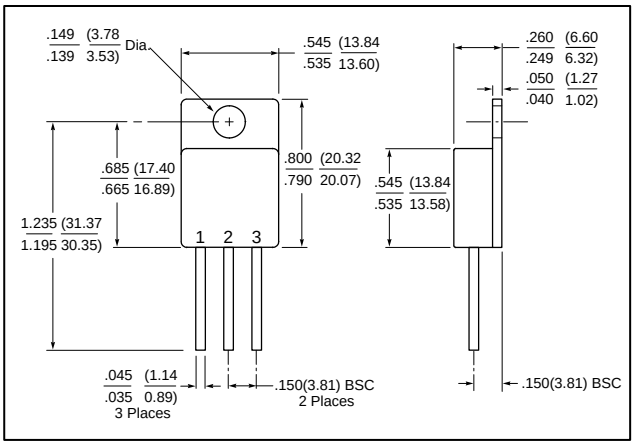
MECHANICAL DIMENSIONS: in Inches / mm



TO-254

PINOUT TABLE

DEVICE TYPE	PIN 1	PIN 2	PIN 3
N-CHANNEL MOSFET IN A TO-254 PACKAGE	DRAIN	SOURCE	GATE

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