TECHNICAL DATA
DATA SHEET 293, REV. A

HERMETIC POWER MOSFET
N-CHANNEL

DESCRIPTION: A 100 VOLT, 0.07 OHM MOSFET IN A HERMETIC SHD-5B PACKAGE.

MAXIMUM RATINGS

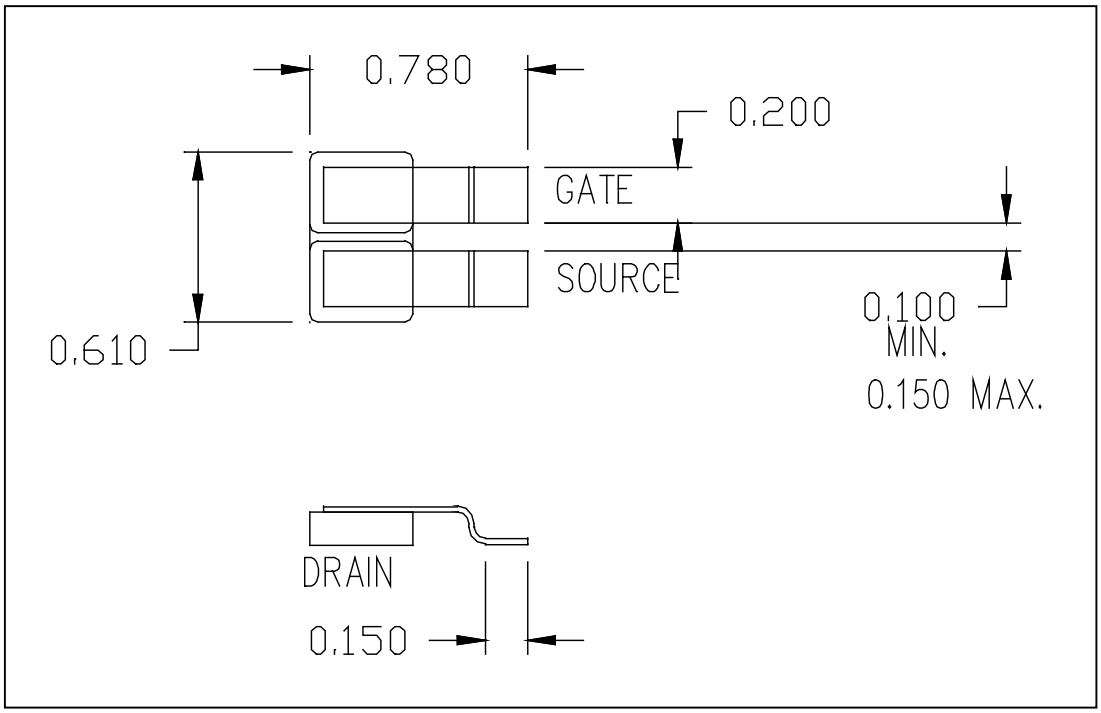
ALL RATINGS ARE AT T_A = 25°C UNLESS OTHERWISE SPECIFIED.

RATING	SYMBOL	MIN.	TYP.	MAX.	UNITS
GATE TO SOURCE VOLTAGE	V_{GS}	-	-	±20	Volts
CONTINUOUS DRAIN CURRENT @ T_C = 25°C	I_D	-	-	34	Amps
PULSED DRAIN CURRENT @ T_C = 100°C	I_{DM}	-	-	136	Amps(pk)
OPERATING AND STORAGE TEMPERATURE	T_{OP}/T_{STG}	-55	-	+150	°C
TERMAL RESISTANCE JUNCTION TO CASE	$R_{\theta JC}$	-	-	0.39	°C/W
TOTAL DEVICE DISSIPATION @ T_C = 25°C	P_D	-	-	320	Watts

ELECTRICAL CHARACTERISTICS

DRAIN TO SOURCE BREAKDOWN VOLTAGE V_{GS} = 0V, I_D = 1.0mA	BV_{DSS}	100	-	-	Volts
GATE THRESHOLD VOLTAGE $V_{DS} = V_{GS}$, I_D = 250µA	$V_{GS(TH)}$	2.0	-	4.0	
DRAIN TO SOURCE ON STATE RESISTANCE V_{GS} = 10Vdc, I_D = 21A PULSE TEST, t ≤ 300 µs, DUTY CYCLE d ≤ 2%	$R_{DS(ON)}$	-	-	0.07	Ω
ZERO GATE VOLTAGE DRAIN CURRENT V_{DS} = 0.8xMax. Rating, V_{GS} = 0Vdc V_{DS} = 0.8xMax. Rating V_{GS} = 0Vdc, T_J = 125°C	I_{DSS}	-	-	25 250	µA
GATE TO BODY LEAKAGE CURRENT V_{GS} = ±20Vdc,	I_{GSS}	-	-	±100	nA
TOTAL GATE CHARGE V_{GS} = 10 Vdc GATE TO SOURCE CHARGE V_{DS} = 0.5V Max. Rating, GATE TO DRAIN CHARGE I_D = 27.4A	Q_g Q_{gs} Q_{gd}	50 8.0 15	-	125 22 65	nC
TURN ON DELAY TIME V_{DD} = 50V, RISE TIME I_D = 34A, TURN OFF DELAY TIME R_G = 2.35Ω FALL TIME	$t_{d(ON)}$ t_r $t_{d(OFF)}$ t_f	-	-	35 190 170 130	nsec
FORWARD VOLTAGE T_J = 25°C, I_S = 34A, V_{GS} = 0V PULSE TEST, t ≤ 300 µs, DUTY CYCLE d ≤ 2%	V_{SD}	-	-	1.8	Volts
REVERSE RECOVERY TIME I_F = 34A REVERSE RECOVERY CHARGE di/dt = 100A/µsec V_{DD} ≤ 50V	t_{rr} Q_{rr}	- -	- -	500 2.9	nsec µC
INPUT CAPACITANCE V_{DS} = 25 Vdc, OUTPUT CAPACITANCE V_{GS} = 0 Vdc, REVERSE TRANSFER CAPACITANCE f = 1 MHz	C_{iss} C_{oss} C_{rss}	-	3700 1100 200	-	pF

MECHANICAL DIMENSIONS: in Inches



SHD-5B

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