

TECHNICAL DATA
DATA SHEET 817, REV -

HERMETIC POWER MOSFET
P-CHANNEL

FEATURES:

- -60 Volt, 0.4 Ohm, -18 A MOSFET
- Isolated Hermetic Metal Package
- Fast Switching
- Low $R_{DS(on)}$

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 @ $T_C = 25^\circ\text{C}$	$I_{D(on)}$	-	-	-18	Amps
PULSED DRAIN CURRENT @ $T_C = 25^\circ\text{C}$	I_{DM}	-	-	-72	Amps
OPERATING AND STORAGE TEMPERATURE	T_{OP}/T_{STG}	-55	-	+175	$^\circ\text{C}$
THERMAL RESISTANCE, JUNCTION TO CASE	$R_{\theta JC}$	-	-	1.32	$^\circ\text{C}/\text{W}$
TOTAL DEVICE DISSIPATION @ $T_C = 25^\circ\text{C}$	P_D	-	-	110	Watts

ELECTRICAL CHARACTERISTICS

DRAIN TO SOURCE BREAKDOWN VOLTAGE $V_{GS} = 0\text{V}, I_D = 250\mu\text{A}$	BV_{DSS}	-60	-	-	Volts
STATIC DRAIN TO SOURCE ON STATE RESISTANCE $V_{GS} = -10\text{V}, I_D = -11\text{A}$	$R_{DS(ON)}$	-	-	0.14	Ω
GATE THRESHOLD VOLTAGE $V_{DS} = V_{GS}, I_D = -250\mu\text{A}$	$V_{GS(th)}$	-2.0	-	-4.0	Volts
FORWARD TRANSCONDUCTANCE $V_{DS} = -25V_{DS(on)}, I_D = -11\text{A}$	g_{fs}	5.9	-	-	S(1/ Ω)
ZERO GATE VOLTAGE DRAIN CURRENT $V_{DS} = -60, V_{GS} = 0\text{V}$ $V_{DS} = -48, V_{GS} = 0\text{V}, T_J = 150^\circ\text{C}$	I_{DSS}	-	-	-100 -500	μA
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
TURN ON DELAY TIME RISE TIME TURN OFF DELAY TIME FALL TIME $V_{DD} = -30\text{V}, I_D = -18\text{A}, R_G = 12\Omega, V_{GS} = -10\text{V}$	$t_{d(ON)}$ t_r $t_{d(OFF)}$ t_f	-	18 120 20 58	-	nsec
TOTAL GATE CHARGE $V_{GS} = -10\text{V}, I_D = -18\text{A}, V_{DS} = -48$	Q_g	-	-	34	nC
GATE TO SOURCE ON-STATE VOLTAGE $V_{GS} = -10\text{V}, I_D = -18\text{A}, V_{DS} = -48$	Q_{gs}	-	-	9.9	nC
GATE DRAIN CHARGE $V_{GS} = -10\text{V}, I_D = -18\text{A}, V_{DS} = -48$	Q_{gd}	-	-	16	nC
DIODE FORWARD VOLTAGE $T_C = 25^\circ\text{C}, I_S = -18\text{A}, V_{GS} = 0\text{V}$	V_{SD}	-	-	-6.3	Volts
REVERSE RECOVERY TIME $T_J = 25^\circ\text{C}, I_F = -18\text{A}, di/dt = -100\text{A}/\mu\text{sec}$	t_{rr}	-	-	440	nsec
INPUT CAPACITANCE OUTPUT CAPACITANCE REVERSE TRANSFER CAPACITANCE $V_{GS} = 0\text{V}, V_{DS} = 25\text{V}, f = 1.0\text{MHz}$	C_{iss} C_{oss} C_{rss}	-	1100 620 100	-	pF

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