

TECHNICAL DATA
DATA SHEET 5035, REV. -

LOW R_{DS} HERMETIC POWER MOSFET - P-CHANNEL

FEATURES:

- 60 Volt, 0.01 Ohm, 90A MOSFET
- Isolated Hermetic Metal Package
- Ultra Low R_{DS(on)}

MAXIMUM RATINGS

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

RATING	SYMBOL	MIN.	TYP.	MAX.	UNITS
GATE TO SOURCE VOLTAGE	V _{GS}	-	-	±20	Volts
ON-STATE DRAIN CURRENT	I _{D25}	-	-	- 55*	Amps
PULSED DRAIN CURRENT	I _{DM}	-	-	- 200	Amps
OPERATING AND STORAGE TEMPERATURE	T _J /T _{STG}	-55	-	+150	°C
TOTAL DEVICE DISSIPATION	P _D	-	-	205	Watts
THERMAL RESISTANCE, JUNCTION TO CASE	R _{θJC}	-	-	0.6	°C/W

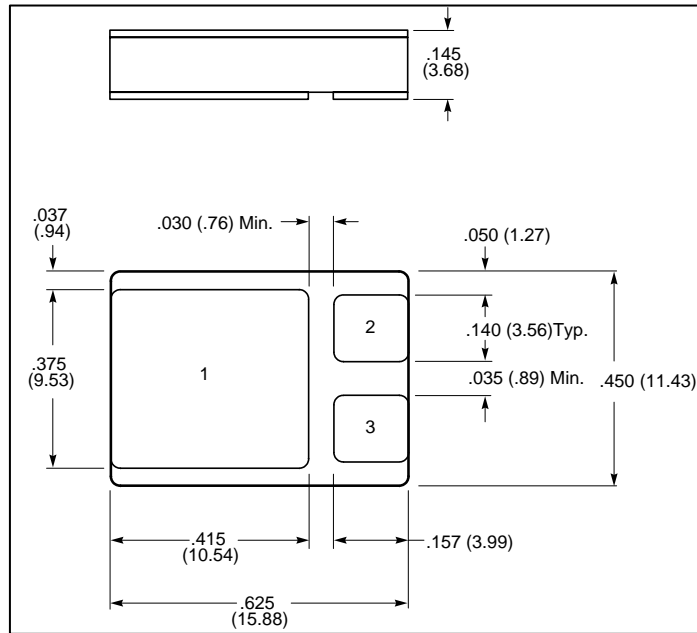
Note: * current limited by package; die rating is 90A

ELECTRICAL CHARACTERISTICS

CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNITS
DRAIN TO SOURCE BREAKDOWN VOLTAGE V _{GS} = 0V, I _D = - 250μA	BV _{DSS}	- 60	-	-	Volts
STATIC DRAIN TO SOURCE ON STATE RESISTANCE V _{GS} = - 10V, I _D = - 30A V _{GS} = - 4.5V, I _D = - 20A	R _{DS(ON)}	-	0.008 0.010	0.010 0.012	Ω
GATE THRESHOLD VOLTAGE V _{DS} = V _{GS} , I _D = - 250μA	V _{GS(th)}	- 1	-	- 3	Volts
FORWARD TRANSCONDUCTANCE V _{DS} = - 15V, I _D = - 50A	g _{fs}	20	-	-	S(1/Ω)
ZERO GATE VOLTAGE DRAIN CURRENT V _{DS} = 0.8 x Max. rating, V _{GS} = 0V, T _J = 25°C T _J = 125°C	I _{DSS}	-	-	- 1 - 50	μA
GATE TO SOURCE LEAKAGE FORWARD V _{GS} = 20V GATE TO SOURCE LEAKAGE REVERSE V _{GS} = -20V	I _{GSS}	-	-	100 -100	nA
TURN ON DELAY TIME V _{DD} = - 30V RISE TIME I _D = - 55A	t _{d(ON)} t _r	-	20 190	-	nsec
TURN OFF DELAY TIME V _{GS} = - 10V FALL TIME R _G = 2.5Ω	t _{d(OFF)} t _f	-	140 300	-	nsec
DIODE FORWARD VOLTAGE I _F = - 55A, V _{GS} = 0V Pulse test, t ≤ 300 μs, duty cycle d ≤ 2 %	V _{SD}	-	- 1.0	- 1.5	Volts
REVERSE RECOVERY TIME T _J = 25°C, I _F = - 50A, V _R = - 30V di/dt = - 100A/μsec	t _{rr}	-	60	90	nsec
REVERSE RECOVERY CURRENT	I _{rr}	-	- 3	- 4.5	A
INPUT CAPACITANCE V _{GS} = 0 V, OUTPUT CAPACITANCE V _{DS} = - 25 V, REVERSE TRANSFER CAPACITANCE f = 1.0MHz	C _{iss} C _{oss} C _{rss}	-	9200 975 760	-	pF

SENSITRON
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MECHANICAL DIMENSIONS: in Inches / mm



LCC-3P

PINOUT TABLE

DEVICE TYPE	PIN 1	PIN 2	PIN 3
P CHANNEL MOSFET IN A LCC-3P PACKAGE	DRAIN	SOURCE	GATE

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