

TECHNICAL DATA DATA SHEET 1063, REV. B

HERMETIC POWER MOSFET N-CHANNEL

FEATURES:

- 100 Volt, 0.035 Ohm, 55A MOSFET
- Electrically Isolated, Hermetically Sealed
- Electrically Equivalent to OM55N10SA

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}	ı	-	±20	Volts
CONTINUOUS DRAIN CURRENT® V _{GS} =10V, T _C = 25°C	I _D	-	-	55	Amps
$V_{GS}=10V, T_{C}=100^{\circ}C$				33	
PULSED DRAIN CURRENT2	I_{DM}	•	-	180	Amps
OPERATING AND STORAGE TEMPERATURE	T_{OP}/T_{STG}	-55	-	+150	°C
TERMAL RESISTANCE JUNCTION TO CASE	$R_{\theta JC}$	ı	-	0.43	°C/W
TOTAL DEVICE DISSIPATION @ T _C = 25°C	P_{D}	ı	-	290	Watts

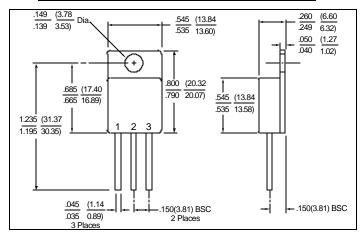
ELECTRICAL CHARACTERISTICS

CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNITS
DRAIN TO SOURCE BREAKDOWN VOLTAGE	BV _{DSS}	100	-	-	Volts
$V_{GS} = 0V, I_{D} = 250\mu A$					
DRAIN TO SOURCE ON STATE RESISTANCE		-	-		Ω
$V_{GS} = 10V$, $I_D = 30$ Adc	R _{DS(ON)}			0.035	
$T_{C} = 100^{\circ}C$				0.07	
GATE THRESHOLD VOLTAGE $V_{DS} = V_{GS}$, $I_{D} = 250\mu A$	V _{GS(th)}	2.0	-	4.0	Volts
FORWARD TRANSCONDUCTANCE	g fs	25	-	-	S(1/Ω)
$V_{DS} > I_{D \text{ (on)}}, I_{D} = 30 \text{ Adc}$					
ZERO GATE VOLTAGE DRAIN CURRENT		-	-		μΑ
$V_{DS} = Max. Rating, V_{GS} = 0V$	I _{DSS}			250	
$V_{DS} = Max. Rating x 0.8$				1000	
$V_{GS} = 0V, T_{J} = 125^{\circ}C$	<u> </u>	1		400	•
GATE TO SOURCE LEAKAGE FORWARD $V_{GS} = -20V$ GATE TO SOURCE LEAKAGE REVERSE $V_{GS} = 20V$	I _{GSS}	-	-	-100 100	nA
GATE TO SOURCE LEAKAGE REVERSE $V_{GS} = 20V$ TOTAL GATE CHARGE $V_{GS} = 10V$,				100	nC
$V_{DS} = Max. Rating x 0.8,$	Q_{q}	-	120	-	TIC .
$I_D = 30A$	Q _g		120		
OFF VOLTAGE RISE TIME V _{DD} = 80V,	T _{r(Voff)}	-	200	-	nsec
FALL TIME $I_D = 30A$,	t _f		210		
CROSSOVER TIME $R_G = 50\Omega$,	t _{cross}		410		
$V_{GS} = 10V$					
DIODE FORWARD VOLTAGE $T_J = 25^{\circ}C$, $I_{SD} = 55A$,	V_{SD}	-	-	1.5	Volts
$V_{GS} = 0V$					
$T_{J} = 125^{\circ}C$					
DIODE REVERSE RECOVERY TIME $T_J = 25^{\circ}C$,	t _{rr}	-	180	-	nsec
REVERSE RECOVERY CHARGE $I_S = 55A$,					
diS/dt = -100A/μsec			4.0		
$V_R = 80 \text{ V}$	Q _{rr}		1.8		μC
INPUT CAPACITANCE $V_{GS} = 0 V$,	C _{iss}	-	4000	-	pF
OUTPUT CAPACITANCE V _{DS} = 25 V,	Coss		1100		
REVERSE TRANSFER CAPACITANCE f = 1.0MHz	C _{rss}		250	4.50/	

① Package Limited: I_D = 25A @ 25°C ② Pulse Test: Pulse width 300μs. Duty Cycle 1.5%

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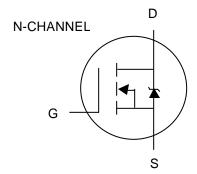
MECHANICAL DIMENSIONS: in Inches / mm



TO-254

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

SCEMATIC SYMBOL





TECHNICAL DATA

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