

TECHNICAL DATA DATA SHEET 4066, REV.-

HERMETIC POWER MOSFET N-CHANNEL

FEATURES:

- 400 Volt, 0.3 Ohm, 14A MOSFET
- Low R_{DS (on)}
- Electrically Equivalent to IRF350 Series

MAXIMUM RATINGS

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

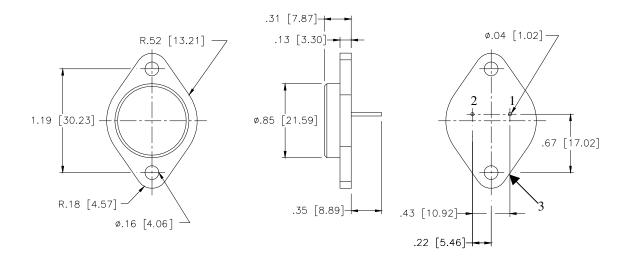
RATING		SYMBOL	MIN.	TYP.	MAX.	UNITS
GATE TO SOURCE VOLTAGE		V_{GS}	-	-	±20	Volts
ON-STATE DRAIN CURRENT	@ T _C = 25°C	I _D	-	-	14	Amps
ON-STATE DRAIN CURRENT	@ T _C = 100°C	I_D	-	-	9.0	Amps
PEAK DRAIN CURRENT	@ $T_C = 25^{\circ}C$	I _{DM}	-	-	56	Amps
OPERATING AND STORAGE TEMPERATURE		T_{OP}/T_{STG}	-55	-	+150	°C
TOTAL DEVICE DISSIPATION @ T _C = 25°C		P_{D}	-	-	150	Watts
THERMAL RESISTANCE, JUNCTION TO CASE		R_{thJC}	-	-	0.83	°C/W

ELECTRICAL CHARACTERISTICS

CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNITS
DRAIN TO SOURCE BREAKDOWN VOLTAGE	BV _{DSS}	400	-	-	Volts
$V_{GS} = 0V, I_{D} = 1.0mA$					
STATIC DRAIN TO SOURCE ON STATE RESISTANCE		-	-		Ω
$V_{GS} = 10V, I_D = 9.0A$	R _{DS(ON)}			0.3	
$V_{GS} = 10V$, $I_D = 14A$				0.4	
GATE THRESHOLD VOLTAGE V _{DS} = V _{GS} , I _{DS} = 0.25mA	$V_{GS(th)}$	2	-	4	Volts
FORWARD TRANSCONDUCTANCE	9 _{fs}	6.0	-	-	S(1/Ω)
$V_{DS} \ge 15V$, $I_{DS} = 9.0A$					
ZERO GATE VOLTAGE DRAIN CURRENT		-	-	0.5	_
$V_{DS} = Max. Rating, V_{GS} = 0V$ $T_{J} = 25^{\circ}C$	I _{DSS}			25	μΑ
$V_{DS} = 0.8$ xMax. Rating, $V_{GS} = 0$ V, $T_{J} = 125$ °C				250	
GATE TO SOURCE LEAKAGE FORWARD V _{GS} = 20V	I_{GSS}	-	-	100	nA
GATE TO SOURCE LEAKAGE REVERSE V _{GS} = -20V	_			-100	
TURN ON DELAY TIME $V_{DD} = 200V$,	$t_{d(ON)}$	-	-	35	
RISE TIME I _D = 14A,	t _r			190	nsec
TURN OFF DELAY TIME $R_G = 2.35\Omega$	t _{d(OFF)}			170 130	
FALL TIME TOTAL GATE CHARGE ID = 14A.	t _f	52	_	110	nC
,	Q _g	5		18	
,	Q _{gs}	25	-	65	nC nC
5	Q _{gd}	23	-	1.7	Volts
DIODE FORWARD VOLTAGE $T_C = 25^{\circ}C$, $I_S = 14A$,	V_{SD}	-	_	1.7	VUILS
V _{GS} = 0V	0			250	
REVERSE RECOVERY CHARGE T _J = 25°C,	Q_{RR}	-	-	250	μС
$di/dt \le 100A/\mu sec, V_{DD} \le 50V$				1000	
REVERSE RECOVERY TIME $T_J = 25^{\circ}C$,	t _{rr}	-	-	1200	2000
$I_{\rm F} = 14A,$ $di/dt < 100A/vace V < 50V$					nsec
$\frac{\text{di/dt} \le 100\text{A/µsec, V}_{DD} \le 50\text{V}}{\text{INPUT CAPACITANCE}}$	-		2600		
	C _{iss}	-	680	-	nE
REVERSE TRANSFER CAPACITANCE $V_{DS} = 25 \text{ V}$	Coss		250		pF
HEVERSE HANSFER CAFACITAINGE I = 1.0101112	C_{rss}	1	250		

DATA SHEET 4066, REV. -

MECHANICAL DIMENSIONS: in Inches / mm



PINOUT TABLE

DEVICE TYPE	PIN 1	PIN 2	PIN 3
MOSFET	SOURCE	GATE	DRAIN
TO-3 / TO-204 AA			
PACKAGE			



TECHNICAL DATA

DISCLAIMER:

- 1- The information given herein, including the specifications and dimensions, is subject to change without prior notice to improve product characteristics. Before ordering, purchasers are advised to contact the Sensitron Semiconductor sales department for the latest version of the datasheet(s).
- 2- In cases where extremely high reliability is required (such as use in nuclear power control, aerospace and aviation, traffic equipment, medical equipment, and safety equipment), safety should be ensured by using semiconductor devices that feature assured safety or by means of users' fail-safe precautions or other arrangement.
- 3- In no event shall Sensitron Semiconductor be liable for any damages that may result from an accident or any other cause during operation of the user's units according to the datasheet(s). Sensitron Semiconductor assumes no responsibility for any intellectual property claims or any other problems that may result from applications of information, products or circuits described in the datasheets.
- 4- In no event shall Sensitron Semiconductor be liable for any failure in a semiconductor device or any secondary damage resulting from use at a value exceeding the absolute maximum rating.
- 5- No license is granted by the datasheet(s) under any patents or other rights of any third party or Sensitron Semiconductor.
- 6- The datasheet(s) may not be reproduced or duplicated, in any form, in whole or part, without the expressed written permission of Sensitron Semiconductor.
- 7- The products (technologies) described in the datasheet(s) are not to be provided to any party whose purpose in their application will hinder maintenance of international peace and safety nor are they to be applied to that purpose by their direct purchasers or any third party. When exporting these products (technologies), the necessary procedures are to be taken in accordance with related laws and regulations.