SENSITRON SEMICONDUCTOR

TECHNICAL DATA DATA SHEET 4151, REV. B

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

FEATURES:

- 100 Volt, 0.011 Ohm, 90A MOSFET for Glidcop version
- Isolated Hermetic Metal Package
- Ultra Low R_{DS (on)}
- Ceramic Seals with Glidcop leads (SHDCG224701)

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}	-	-	70*	Amps
PULSED DRAIN CURRENT		I _{DM}	-	-	240	Amps
OPERATING AND STORAGE TEMPERAT	URE	T _J /T _{STG}	-55	-	+150	°C
TOTAL DEVICE DISSIPATION		PD	-	-	210	Watts
THERMAL RESISTANCE, JUNCTION TO	CASE	Reic	-	-	0.6	°C/W

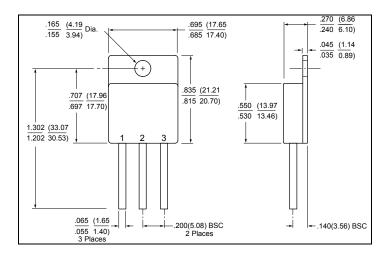
Note: * current limited by package; die rating is 90A

ELECTRICAL CHARACTERISTICS

CHARACTERISTIC		SYMBOL	MIN.	TYP.	MAX.	UNITS
DRAIN TO SOURCE BREAKDOWN VOL	ſAGE	BV _{DSS}	100	-	-	Volts
V _{GS} =	0V, I _D = 250μA					
STATIC DRAIN TO SOURCE ON STATE		R _{DS(ON)}				Ω
V _{GS} =	10V, I _D = 30A	Glidcop	-	0.011	0.013	
		Version				
STATIC DRAIN TO SOURCE ON STATE		R _{DS(ON)}				Ω
V _{GS} =	10V, I _D = 30A	Standard	-	0.013	0.015	
	(L 050 A	Version	2		4	Valta
	′ _{GS} , I _D = 250μA	V _{GS(th)}		-	4	Volts
FORWARD TRANSCONDUCTANCE	(5)/(1 - 20)	9 _{fs}	25	-	-	S(1/Ω)
ZERO GATE VOLTAGE DRAIN CURREN	15V, I _D = 30A					
		1			1	^
V_{DS} = 0.8 x Max. rating, V_{GS} =	$T_{\rm J} = 125^{\circ}{\rm C}$	I _{DSS}	-	-	50	μA
GATE TO SOURCE LEAKAGE FORWAR					100	nA
GATE TO SOURCE LEAKAGE REVERSE		I _{GSS}	_	_	-100	
TURN ON DELAY TIME	$V_{DD} = 50V$	t _{d(ON)}	_	20	30	
RISE TIME	$I_{\rm D} = 55A$	tr		110	170	nsec
	D	-		_	-	
TURN OFF DELAY TIME	V _{GS} =10V	t _{d(OFF)}		65	100	
FALL TIME	R _G = 2.5Ω	t _f		100	150	
DIODE FORWARD VOLTAGE I _F =	: 30A, V _{GS} = 0V	V _{SD}	-	1.0	1.2	Volts
Pulse test, t \leq 300 μ s, dut	y cycle d \leq 2 %					
REVERSE RECOVERY TIME	T _J = 25°C,					
I _F =	30A, V _R = 100V	t _{rr}	-	70	140	nsec
	dt = 100A/µsec					
INPUT CAPACITANCE	$V_{GS} = 0 V,$	C _{iss}	-	8700	-	_
OUTPUT CAPACITANCE	$V_{DS} = 25 V,$	C _{oss}		740		pF
REVERSE TRANSFER CAPACITANCE	f = 1.0MHz	C _{rss}		450		

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MECHANICAL DIMENSIONS: in Inches / mm

TO-258

DEVICE TYPE	PIN-1	PIN-2	PIN-3
N-CHANNEL MOSFET	DRAIN	SOURCE	GATE
TO-258 PACKAGE			

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