

TECHNICAL DATA
DATA SHEET 4340, REV. -

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

FEATURES:

- 60 Volt, 0.008 Ohm, 110A MOSFET for Glidcop version
- Isolated Hermetic Metal Package
- Ultra Low R_{DS(on)}
- Available with Ceramic Seals and Glidcop leads, use part number SHDCG225715

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}	-	-	440	Amps
OPERATING AND STORAGE TEMPERATURE	T _J /T _{STG}	-55	-	+175	°C
TOTAL DEVICE DISSIPATION	P _D	-	-	215	Watts
THERMAL RESISTANCE, JUNCTION TO CASE	R _{θJC}	-	-	0.7	°C/W

Note: * current limited by package; die rating is 110A

ELECTRICAL CHARACTERISTICS

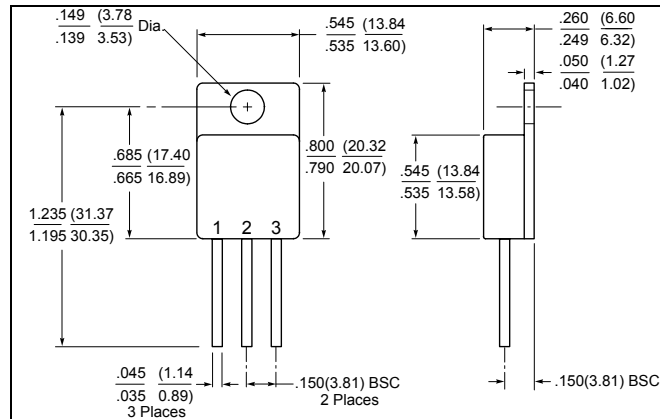
CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNITS
DRAIN TO SOURCE BREAKDOWN VOLTAGE V _{GS} = 0V, I _D = 250μA	BV _{DSS}	60	-	-	Volts
STATIC DRAIN TO SOURCE ON STATE RESISTANCE V _{GS} = 10V, I _D = 30A	R _{DS(ON)} Glidcop Version	-	0.006	0.008	Ω
STATIC DRAIN TO SOURCE ON STATE RESISTANCE V _{GS} = 10V, I _D = 30A	R _{DS(ON)} Standard Version	-	0.008	0.010	Ω
GATE THRESHOLD VOLTAGE V _{DS} = V _{GS} , I _D = 250μA	V _{GS(th)}	1	-	3	Volts
FORWARD TRANSCONDUCTANCE V _{DS} = 15V, I _D = 30A	g _{fs}	30	-	-	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	I _{GSS}	-	-	100	nA
GATE TO SOURCE LEAKAGE REVERSE V _{GS} = -20V				-100	
TURN ON DELAY TIME V _{DD} = 30V	t _{d(ON)}	-	20	30	nsec
RISE TIME I _D = 55A	t _r		135	200	
TURN OFF DELAY TIME V _{GS} = 10V	t _{d(OFF)}		80	120	nsec
FALL TIME R _G = 2.5Ω	t _f		150	220	
DIODE FORWARD VOLTAGE I _F = 30A, V _{GS} = 0V Pulse test, t ≤ 300 μs, duty cycle d ≤ 2 %	V _{SD}	-	1.1	1.3	Volts
REVERSE RECOVERY TIME T _J = 25°C, I _F = 30A, V _R = 100V di/dt = 100A/μsec	t _{rr}	-	75	120	nsec
REVERSE RECOVERY CHARGE T _J = 25°C, I _F = 30A, V _R = 100V di/dt = 100A/μsec	Q _{rr}	-	0.1	0.25	μC
INPUT CAPACITANCE V _{GS} = 0 V,	C _{iss}	-	7500	-	pF
OUTPUT CAPACITANCE V _{DS} = 25 V,	C _{oss}		1050		
REVERSE TRANSFER CAPACITANCE f = 1.0MHz	C _{rss}		700		

SENSITRON

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MECHANICAL DIMENSIONS: in Inches / mm



TO-254

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

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