SENSITRON
SEMICONDUCTOR

SCP-5115

TECHNICAL DATA
PART NUMBER: SCP-5115, REV. -

Hermetic Half Bridge -- IGBT Module
600V, 800A

Features:

- Hermetic Core Construction
- Increased Creepage and Clearance Distances for High Altitude operation
- Built-in RTD for accurate Temperature sense
- High Frequency Switching
- Operation at Temperature Extremes
- Internal Layout with Minimized Stray Inductances

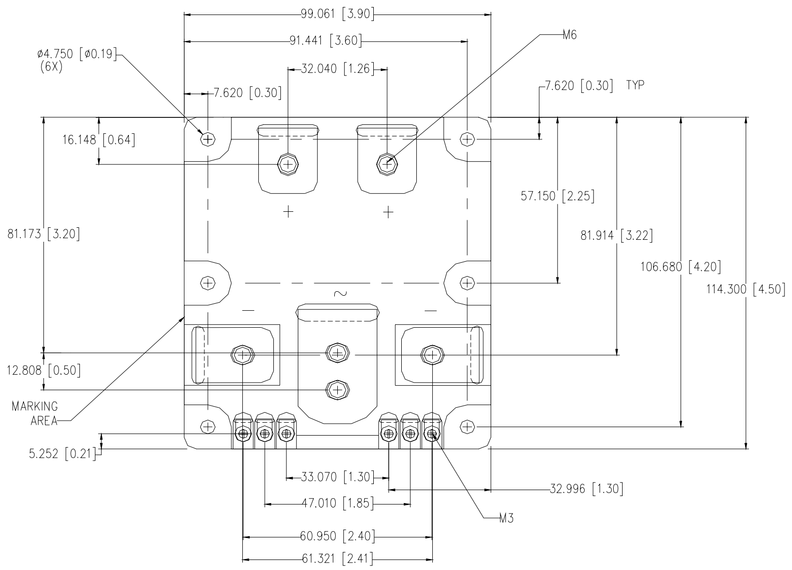
Maximum Ratings All ratings are at T_A = 25°C unless otherwise specified.

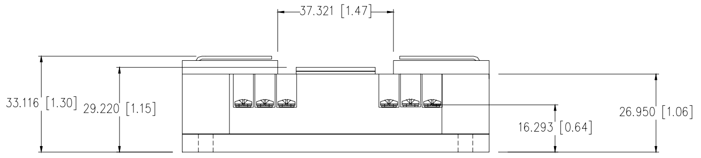
Symbol	Test Conditions	Value	Units
V_{ces}	Vge = 0V	600	V
I_c	Tc = 25C / 70C	800 / 500	A
I_{cpulse}	Tj = 25C / 125C, 10kHz, D=.05	1400 / 800	A
V_{GE}		+ / - 20	V
Hipot	1500Vrms, 50Hz / 60Hz, 1 min.		
T_j		-55 to 150	°C
Diode			
I_F	Tc = 25C / 70C	800 / 500	A
I_{FM}	Tj = 25C / 125C, 10kHz, D=.05	1400 / 800	A

Electrical Characteristics All ratings are at T_A = 25°C unless otherwise specified.

Symbol	Test Conditions	Min.	Typ.	Max.	Units
$V_{CE(sat)}$	Vge = 15V, pulsed ton = 100us, f = 10Hz Ic = 450A Tc = 25C	-	1.9	2.3	V
$V_{GE(th)}$	Ic = 4mA, Vge = Vce	4.5	-	6.0	V
I_{CES}	Vce = 600V, Vge = 0V	-	-	3.0	mA
I_{GES}	Vce = 0V, Vge = 20V Vce = 0V, Vge = 20V, Tc=125C	-	-	600 20	nA mA
Ets	Total Switching Energy Vge = 15V Vcc = 300V, Ic = 450A,	-	30	-	mJ
C_{iss}	Vce = 25V	-	42	-	nF
C_{oss}	Vge = 0V	-	8.2	-	nF
C_{rss}	f = 1MHz	-	7	-	nF
$t_{d(on)}$	Vce = 300V	-	120	180	ns
t_r	Ic = 450A	-	100	220	ns
$t_{d(off)}$	Vge = + / - 15V	-	375	750	ns
t_f	Rg = 1.0 Ohm	-	150	320	ns
Diode					
V_F	I_F = 450A	-	1.4	1.7	V
t_{RR}	I_F = 450A; V_R =300V, di/dt=1000A/usec	-	-	150	ns

MECHANICAL DIMENSIONS: in inches / mm





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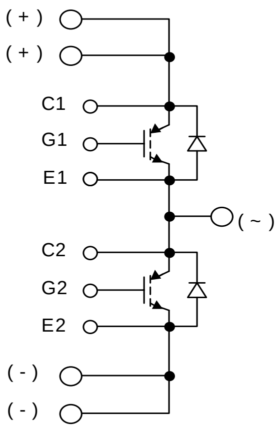

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