

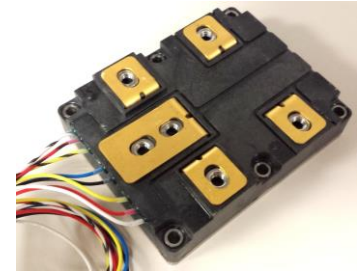
TECHNICAL DATA

PART NUMBER: SCP-5115I, REV. A.1

Half Bridge – IGBT Module 600V, 1200A

Features:

- Near hermetic core construction
- Increased creepage & clearance distances for high altitude operation
- Built-in Pt1000 RTD for accurate temperature sense, R (0°C) = 1000Ω
- 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}	V _{ge} = 0V	600	V
I _c	T _c = 25C / 70C, T _j = 175C	1500 / 1200	A
V _{GE}		+ / - 20	V
Hipot	50Hz / 60Hz, 1 min.	1500	V rms
T _{jmax}		175	°C
Weight		850	gms
Diode			
I _F	T _c = 25C	1200	A
I _{FSM}	tp = 1ms	2400	A

Electrical Characteristics

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

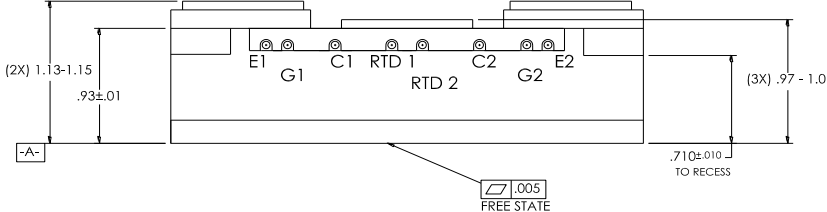
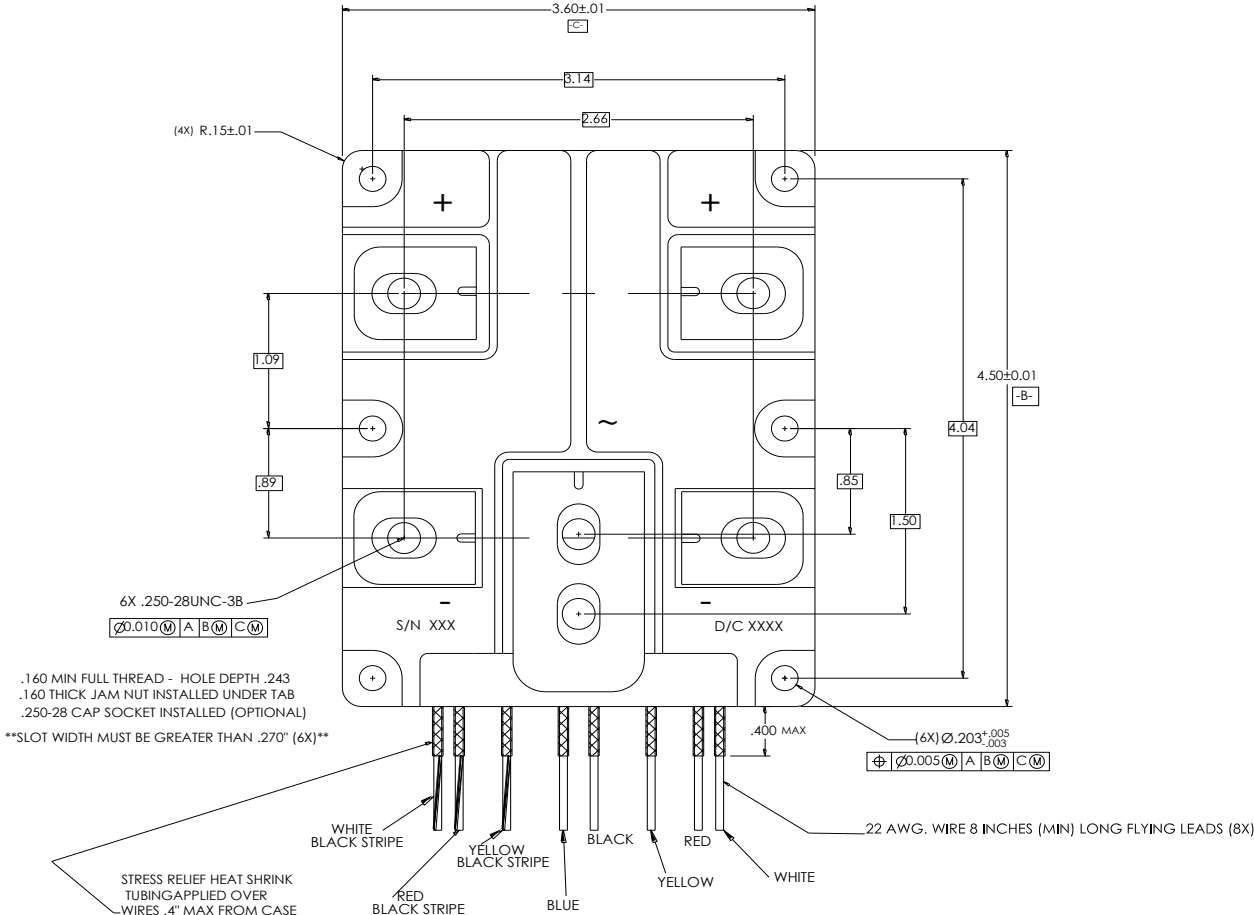
Symbol	Test Conditions	Min.	Typ.	Max.	Units
V _{CE(sat)}	V _{ge} = 15V, pulsed - ton = 300us, I _c = 1200A	-	1.9	2.3	V
V _{GE(th)}	I _c = 20mA, V _{ge} = V _{ce}	4.5	-	6.5	V
I _{CES}	V _{ce} = 600V, V _{ge} = 0V	-	-	1	mA
I _{GES}	V _{ce} = 0V, V _{ge} = 20V, V _{ce} = 0V	-	-	600	nA
E _{ts}	Total Switching Energy V _{ge} = +15V/-10V, V _{ce} = 300V, I _c = 200A R _{gon} = 0.8 ohm, R _{goff} = 1.0 ohm	-	7	-	mJ
Q _G	V _{ge} = +/-15V	-	17.2	-	μC
C _{iss}	V _{ce} = 25V, V _{ge} = 0V, f = 1MHz	-	104	-	nF
C _{rss}		-	3	-	nF
t _{d(on)}	V _{ce} = 300V	-	390	-	ns
t _r	I _c = 200A	-	30	-	ns
t _{d(off)}	V _{ge} = + 15V/-10V	-	830	-	ns
t _f	R _{gon} = 0.8 ohm, R _{goff} = 1.0 ohm	-	60	-	ns
R _{thjc}	IGBT, per switch	-	-	0.021	K/W
R _G	Internal Gate Resistance	-	0.25	-	Ω
Diode					
V _F	I _F = 1200A, pulsed - ton = 300us	-	-	2.1	V
E _{rec}	I _F = 200A; V _R = 300V, di/dt = 6,000A/usec	-	2	-	mJ
R _{thjc}	Diode, per switch	-	-	0.036	K/W
RTD					
TCR		-	3850	-	ppm/K

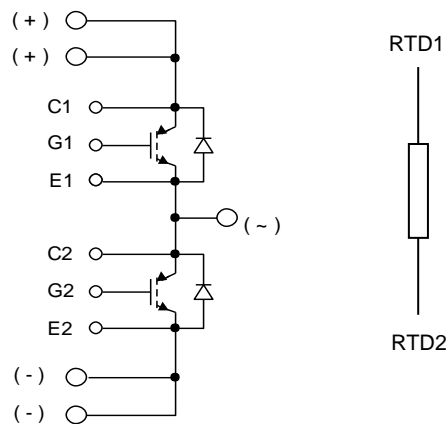
SENSITRON

TECHNICAL DATA

PART NUMBER: SCP-5115I, REV. A.1

MECHANICAL DIMENSIONS: in inches / mm



SENSITRON**TECHNICAL DATA****PART NUMBER: SCP-5115I, REV. A.1****SCHEMATIC****DISCLAIMER:**

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