SENSITRON
SEMICONDUCTOR

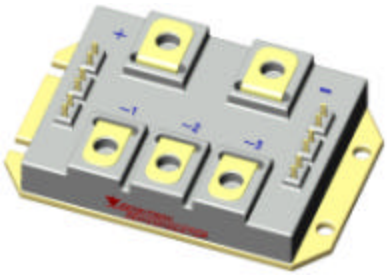
SCP-5144

TECHNICAL DATA
PART NUMBER: SCP-5144, ENG. -

3-Phase Bridge -- IGBT Module
600V, 100A

Features:

- Multiple Layer, Moisture and Contamination Resistant Construction
- Increased Creepage and Clearance Distances for High Altitude Operation
- Operation at Temperature Extremes
- Internal Layout with Minimized Stray Inductances
- High Frequency Switching



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

Symbol	Test Conditions	Value	Units
V_{ces}	Tj = 150C	600	V
I_c	Tc = 25C / 80C	100 / 70	A
I_{cpulse}	Tc = 25C / 80C F= 10kHz, D=.05, Vce = 300V	200 / 140	A
V_{GE}		+ / - 20	V
Hipot	1500Vrms, 50Hz / 60Hz, 1 min.	10	uA
T_j		-55 to 150	°C
Diode			
I_F	Tc = 25C / 80C	100 / 70	A
I_{FM}	Tc = 25C / 80C F= 10kHz, D=.05	200 / 140	A

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

Symbol	Test Conditions	Min.	Typ.	Max.	Units
$V_{(BR)ces}$	Vge = 0V,	600	-	-	V
$V_{CE(sat)}$	Vge = 15V, Ic = 100A	-	2.0	-	V
$V_{GE(th)}$	Ic = 1mA, Vge = Vce	-	5.5	-	V
I_{CES}	Vce = 600V, Vge = 0V	-		-	mA
I_{GES}	Vce = 0V , Vge = 20V	-		250	nA
C_{iss}	Vce = 25V	-	5	-	nF
C_{oss}	Vge = 0V	-	1.5	-	nF
C_{rss}	f = 1MHz	-	.4	-	nF
$t_{d(on)}$	Vc = 300V	-	50	-	ns
t_r	Ic = 100A	-	20	-	ns
$t_{d(off)}$	Vge = + / - 15V	-	150	-	ns
t_f	Rg = 2.7 Ohm	-	30	-	ns
Diode					
V_F	I_F = 100A, F= 10kHz, D=.05		1.6		V
t_{rr}	Vr = 300V		200		ns

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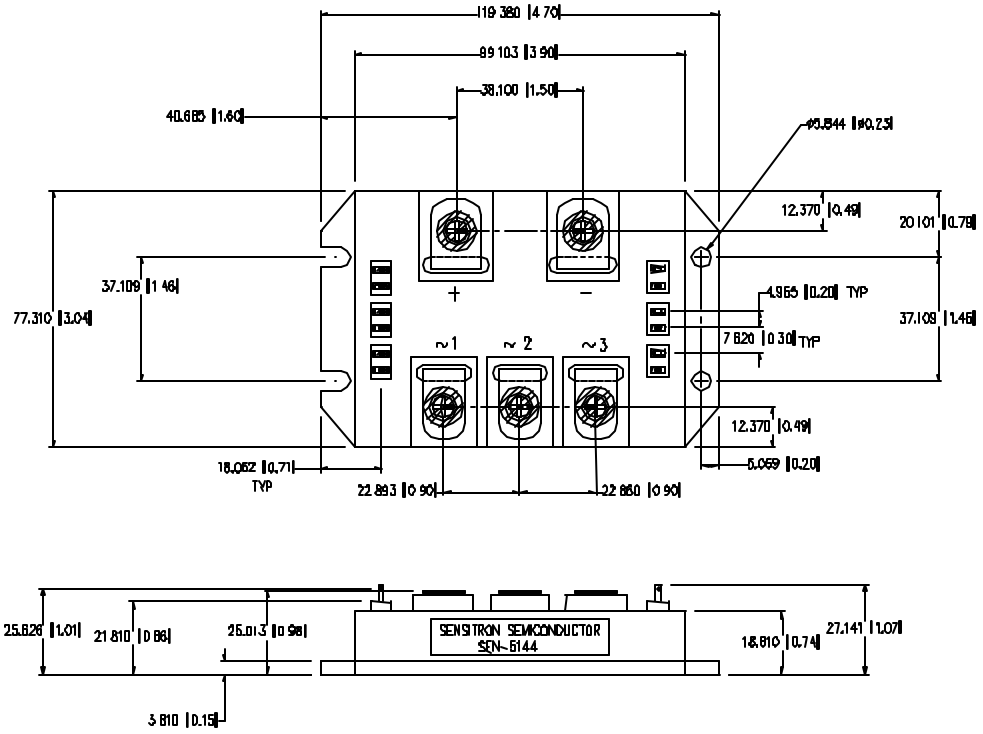
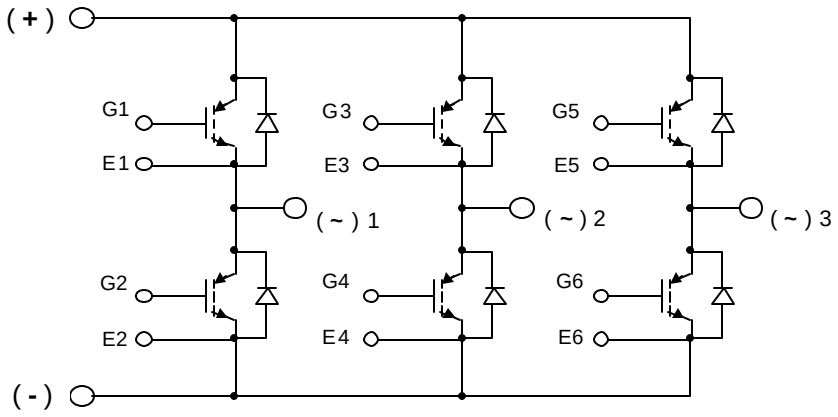
PART NUMBER: SCP-5144, ENG. -

MECHANICAL DIMENSIONS: In Inches / mm



SCHEMATIC



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TECHNICAL DATA

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