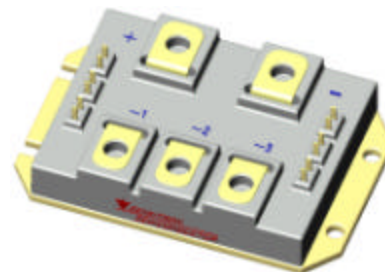


TECHNICAL DATA
PART NUMBER: SCP-5144, ENG. -

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 $T_A = 25^\circ\text{C}$ unless otherwise specified.

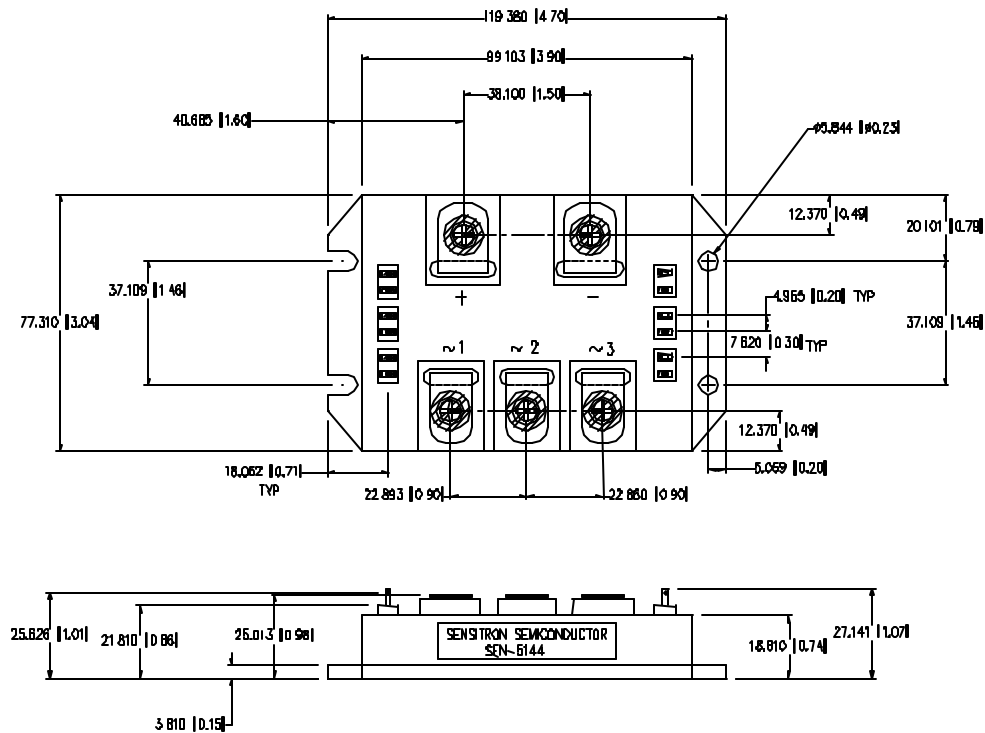
Symbol	Test Conditions	Value	Units
V_{CES}	$T_j = 150^\circ\text{C}$	600	V
I_C	$T_c = 25^\circ\text{C} / 80^\circ\text{C}$	100 / 70	A
I_{CPulse}	$T_c = 25^\circ\text{C} / 80^\circ\text{C}$ $F = 10\text{kHz}, D = .05, V_{ce} = 300\text{V}$	200 / 140	A
V_{GE}		+ / - 20	V
Hipot	1500Vrms, 50Hz / 60Hz, 1 min.	10	μA
T_j		-55 to 150	$^\circ\text{C}$
Diode			
I_F	$T_c = 25^\circ\text{C} / 80^\circ\text{C}$	100 / 70	A
I_{FM}	$T_c = 25^\circ\text{C} / 80^\circ\text{C}$ $F = 10\text{kHz}, D = .05$	200 / 140	A

Electrical Characteristics

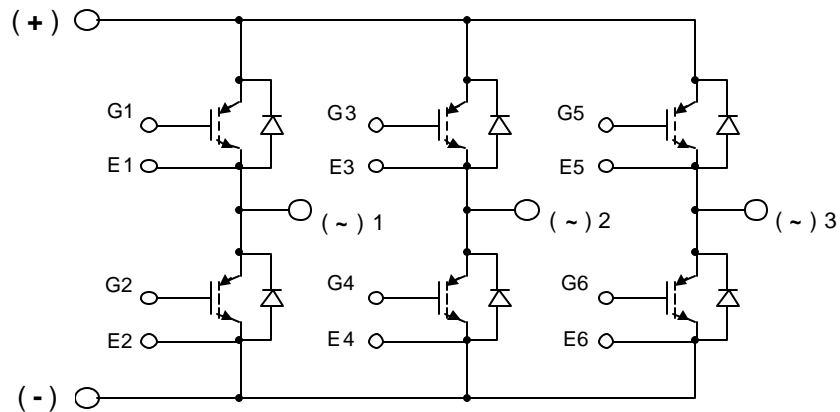
All ratings are at $T_A = 25^\circ\text{C}$ unless otherwise specified.

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

MECHANICAL DIMENSIONS: In Inches / mm



SCHEMATIC



TECHNICAL DATA

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