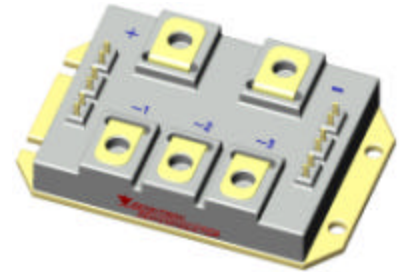


TECHNICAL DATA
PART NUMBER: SCP-5144, ENG. -

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.

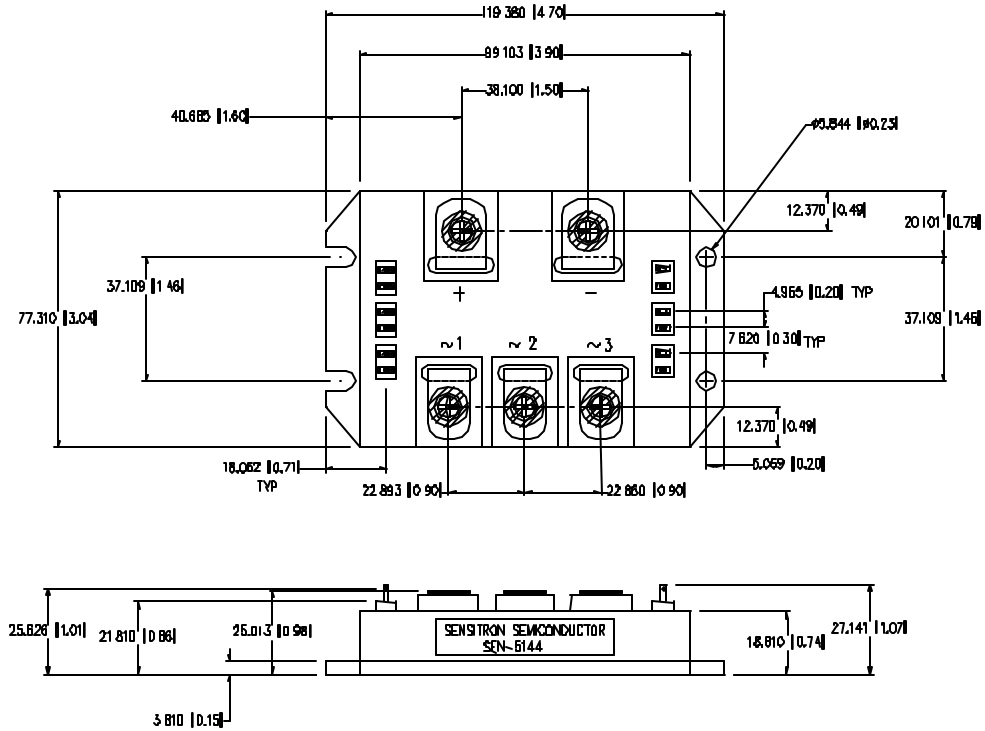
| Symbol | Test Conditions | Value | Units |
|--------------|--|------------|------------------|
| V_{ces} | $T_j = 150\text{C}$ | 600 | V |
| I_c | $T_c = 25\text{C} / 80\text{C}$ | 100 / 70 | A |
| I_{cpulse} | $T_c = 25\text{C} / 80\text{C}$ $F = 10\text{kHz}, D = .05, V_{ce} = 300\text{V}$ | 200 / 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 | $T_c = 25\text{C} / 80\text{C}$ | 100 / 70 | A |
| I_{FM} | $T_c = 25\text{C} / 80\text{C}$ $F = 10\text{kHz}, D = .05$ | 200 / 140 | A |

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

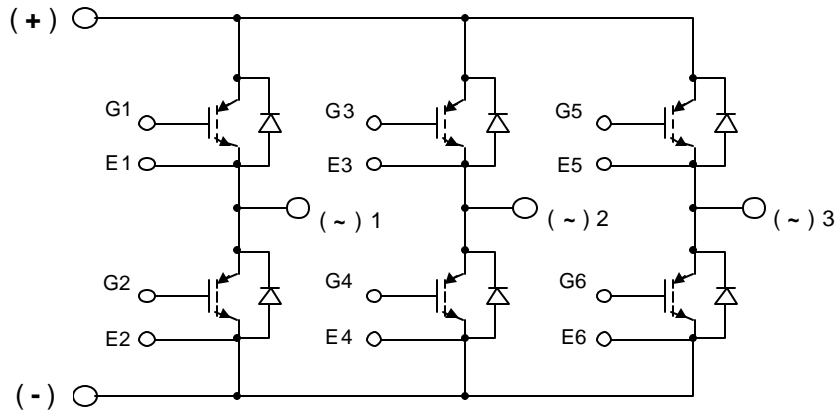
| Symbol | Test Conditions | Min. | Typ. | Max. | Units |
|---------------|--|------|------|------|-------|
| $V_{(BR)ces}$ | $V_{ge} = 0\text{V}$ | 600 | - | - | V |
| $V_{CE(sat)}$ | $V_{ge} = 15\text{V}, I_c = 100\text{A}$ | - | 2.0 | - | V |
| $V_{GE(th)}$ | $I_c = 1\text{mA}, V_{ge} = V_{ce}$ | - | 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 |

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

MECHANICAL DIMENSIONS: In Inches / mm



SCHEMATIC



TECHNICAL DATA

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