

# CAPITÓLIO

## RECTIFIER BRIDGE

**CSD205.16**

Technical Information			
Electrical properties			
<b>Repetitive peak reverse voltage</b>	$T_{vj} = -40^\circ\text{C} \dots T_{vj \text{ max}}$	$V_{RRM}$	1200, 1400, 1600 , 1800 V
<b>Non-repetitive peak reverse voltage</b>	$T_{vj} = +25^\circ\text{C} \dots T_{vj \text{ max}}$	$V_{RSM}$	1300, 1500, 1700 , 1900 V
<b>RMS forward current (per chip)</b>		$I_{FRMSM}$	120 A
<b>Output current</b>	$T_C = 100^\circ\text{C}$ $T_C = 99^\circ\text{C}$ $T_A = 45^\circ\text{C}$ KM11 $T_A = 45^\circ\text{C}$ KM33 $T_A = 35^\circ\text{C}$ KM14 ( $V_L=45\text{I/s}$ ) $T_A = 35^\circ\text{C}$ KM33 ( $V_L=90\text{I/s}$ )	$I_d$	205 A 208 A 80 A 113 A 190 A 208 A
<b>Surge forward current</b>	$T_{vj} = 25^\circ\text{C}; t=10\text{ms}$ $T_{vj} = T_{vj \text{ max}}; t_p=10\text{ms}$	$I_{FSM}$	1600 A 1375 A
<b><math>I^2t</math>-value</b>	$T_{vj} = 25^\circ\text{C}; t=10\text{ms}$ $T_{vj} = T_{vj \text{ max}}; t_p=10\text{ms}$	$I^2t$	12800 A <sup>2</sup> s 9450 A <sup>2</sup> s
<b>Forward voltage</b>	$T_{vj} = T_{vj \text{ max}}; i_F=200\text{ A}$	$V_F$	Max. 1,47 V
<b>Threshold voltage</b>	$T_{vj} = T_{vj \text{ max}}$	$V_{(TO)}$	0,75 V
<b>Forward slope resistance</b>	$T_{vj} = T_{vj \text{ max}}$	$r_T$	2,2 mΩ
<b>Reverse current</b>	$T_{vj} = T_{vj \text{ max}}; V_R = V_{RRM}$	$i_R$	Max. 10mA
<b>Insulation test voltage</b>	RMS, $f = 50\text{Hz}, t = 1\text{min}$ RMS, $f = 50\text{Hz}, t = 1\text{sec}$	$V_{ISOL}$	3,0 kV 3,6 kV
<b>Thermal resistance, junction to case</b>	pro Modul / per module, $Q = 120^\circ\text{rect}$ pro Element / per chip, $Q = 120^\circ\text{rect}$ pro Modul / per module, DC pro Element / per chip, DC	$R_{thJC}$	max 0,098 °C/W max 0,590 °C/W max 0,078 °C/W max 0,470 °C/W
<b>thermal resistance, case to heatsink</b>	pro Modul / per module pro Element / per chip	$R_{thCK}$	max 0,033 °C/W max 0,200 °C/W
<b>Max. junction temperature</b>		$T_{vj \text{ max}}$	105°C
<b>Operating temperature</b>		$T_{C op}$	-40...+150°C
<b>Storage temperature</b>		$T_{stg}$	-40...+150°C
<b>Mounting torque</b>	Tolerance ±15%	$M_1$	6 Nm
<b>terminal connection torque</b>	Tolerance +5% / -10%	$M_2$	4Nm
<b>Weight</b>		$G$	220g
<b>Creepage distance</b>			12,5 mm
<b>Vibration resistance</b>	$f = 50\text{Hz}$		50 m/s <sup>2</sup>

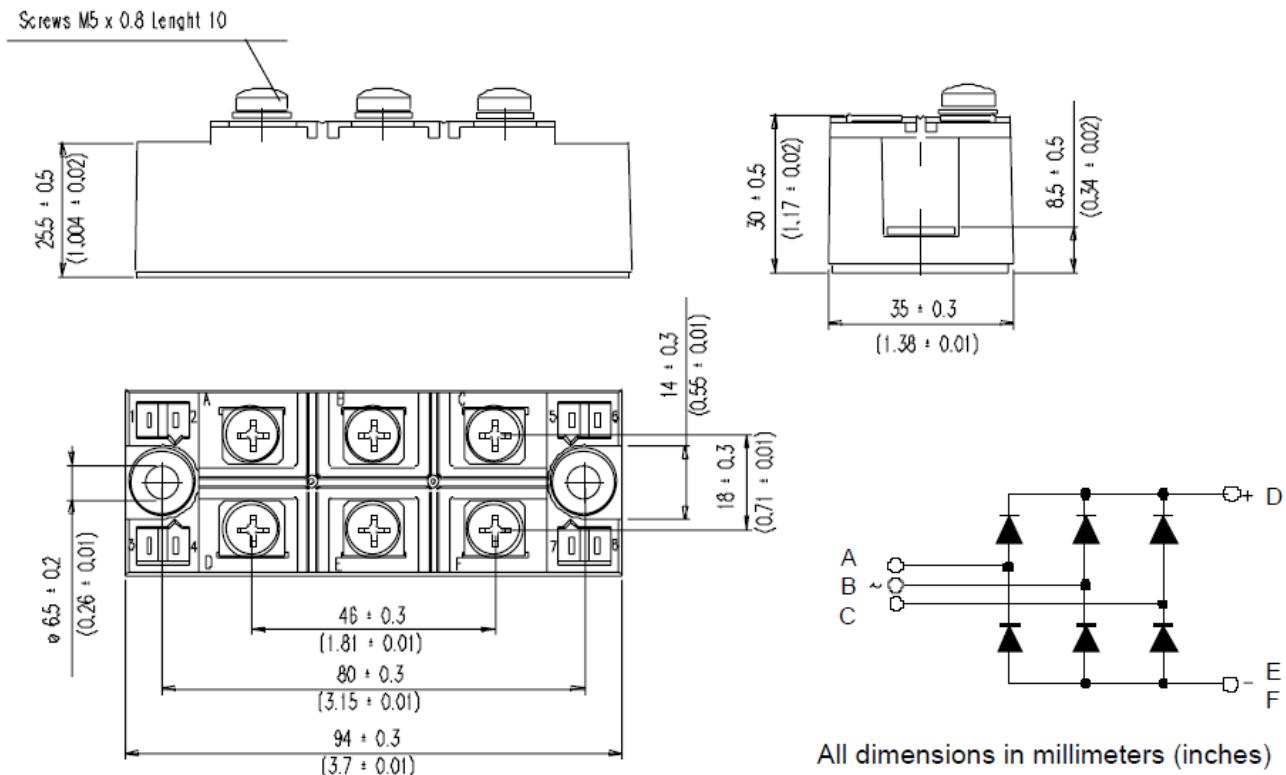
**CAPITÓLIO Comércio Representação Importação e Exportação Ltda.**

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