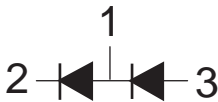
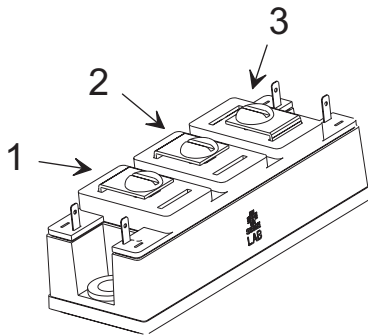


MECHANICAL DATA

Standard Rectifier Diode Module 600 Volt, 2 x 250 Amp



E34 Module

Key Parameters

V_R	(max)	600V
V_F	(typ)	1.19V
I_F	(max)	2 x 250A
t_{rr}	(typ)	4.5µs

TECHNOLOGY

The Semelab range of standard rectifier diodes couple low on state losses and low EMI generation due to a 'rugged' ultra soft recovery under all dynamic conditions.

It comes in the E34 package to allow easy connection of multiple devices in standard configurations. Parallel operation is problem free because Semelab standard rectifier diodes have a positive temperature coefficient of V_F .

BENEFITS

- Ultra soft recovery with low EMI generation
- High dynamic ruggedness under all conditions
- Low on state losses with positive temperature coefficient
- Stable blocking voltage and low leakage current

APPLICATIONS

- High power DC supplies
- Bridge Rectification in PWM inverters
- DC motor field supply
- DC battery applications

ABSOLUTE MAXIMUM RATINGS ($T_{case} = 25^\circ C$ unless otherwise stated)

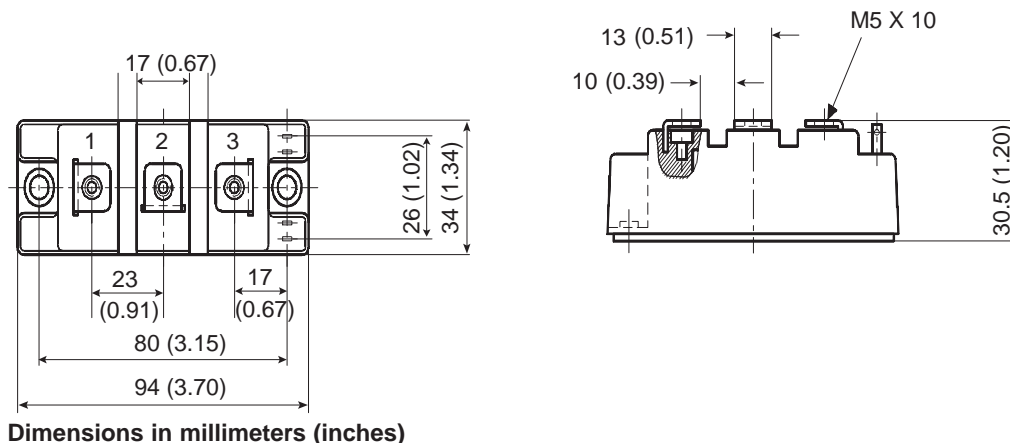
V_{RRM}	Peak Repetitive Reverse Voltage	600V
V_R	DC Reverse Blocking Voltage	600V
I_{FAV}	Average Forward Current @ $T_C = 85^\circ C$	250A
$I_{FSM(surge)}$	Repetitive Forward Current	750A
$I_{FS(surge)}$	Non-Repetitive Forward Current(10msec pulse)	1000A
P_D	Power Dissipation @ $T_C = 85^\circ C$ (per diode)	540W
T_J, T_{STG}	Operating & Storage Junction Temperature	-55 to $150^\circ C$

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ELECTRICAL CHARACTERISTICS (T_{case} = 25°C unless otherwise stated)

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
STATIC ELECTRICAL CHARACTERISTIC					
V _F Forward Voltage Drop	I _F = 250 A T _j = 25°C		1.19	1.3	V
	I _F = 250A T _j = 125°C			1.4	
I _R Leakage Current	V _R = 600V T _j = 25°C			1.28	mA
	V _R = 600V T _j = 125°C			16	
C _T Junction Capacitance	V _R = 600V T _j = 25°C		TBA		pF
DYNAMIC ELECTRICAL CHARACTERISTIC					
Q _{rr} Reverse Recovery Charge	V _R = 300V I _F = 250A d _i / d _t = 1200A/μs T _J = 25°C		241.4		μC
I _{rr} Reverse Recovery Current			177		A
t _{rr} Reverse Recovery Time			2.73		μs
t _{rr} Reverse Recovery Time	V _R = 50V I _F = 1A d _i / d _t = 200A/μs T _J = 25°C		3.28		μs
THERMAL AND MECHANICAL CHARACTERISTICS					
R _{θjc} Junction to Case Thermal Resistance (per diode)			0.12		°C/W
R _{θjA} Junction to Ambient Thermal Resistance (per diode)			0.30		

Package Outline Drawing



Dimensions in millimeters (inches)

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