

Three Phase Silicon Bridge Rectifier

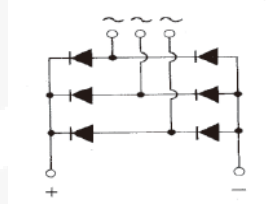
$$V_{RRM} = 800 \text{ V} - 1600 \text{ V}$$

$$I_F = 100 \text{ A}$$

Features

- High Surge Capability
- Types up to 1600 V V_{RRM}
- Not ESD Sensitive

Three Phase Package



Maximum ratings, at $T_j = 25^\circ\text{C}$, unless otherwise specified

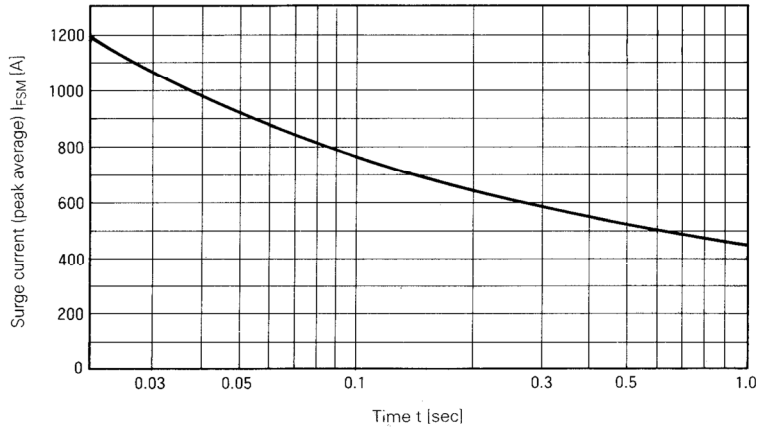
Parameter	Symbol	Conditions	M3P100A-80	M3P100A-160	Unit
Repetitive peak reverse voltage	V_{RRM}		800	1600	V
Non-repetitive peak reverse voltage	V_{RSM}		880	1700	V
Continuous forward current	I_F	$T_C \leq 103^\circ\text{C}$	100	100	A
Surge non-repetitive forward current, Half Sine Wave	I_{FSM}	$T_C = 25^\circ\text{C}$, $t_p = 8.3 \text{ ms}$	1200	1200	A
I^2t	I^2t		6000	6000	A^2S
Operating temperature	T_j		-55 to 150	-55 to 150	$^\circ\text{C}$
Storage temperature	T_{stg}		-55 to 150	-55 to 150	$^\circ\text{C}$

Electrical characteristics, at $T_j = 25^\circ\text{C}$, unless otherwise specified

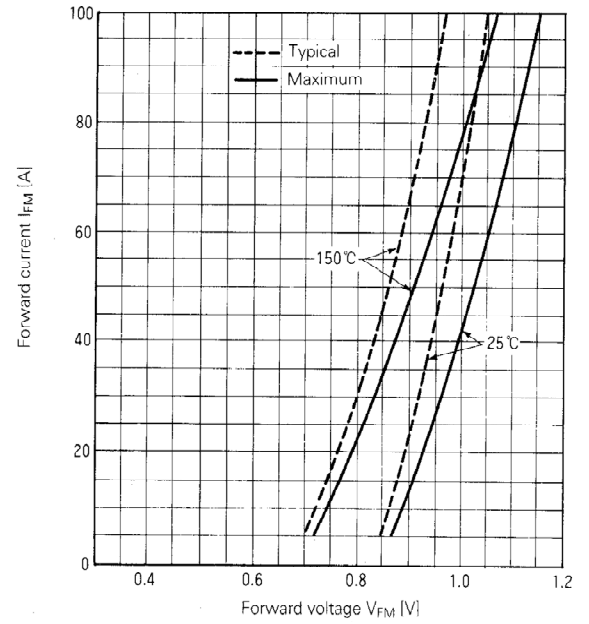
Parameter	Symbol	Conditions	M3P100A-80	M3P100A-160	Unit
Diode forward voltage	V_F	$I_F = 100 \text{ A}$, $T_j = 25^\circ\text{C}$	1.15	1.15	V
Reverse current		$V_R = V_{RRM}$, $T_j = 150^\circ\text{C}$	10	10	mA

Thermal characteristics

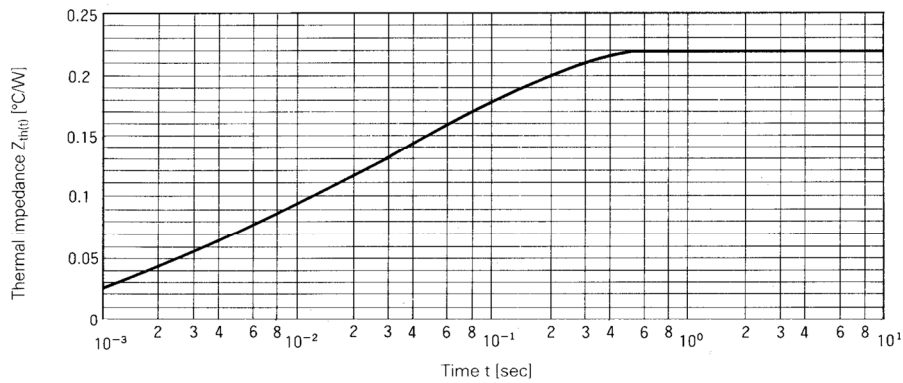
Thermal resistance, junction - case	R_{thJC}		0.22	0.22	$^\circ\text{C/W}$
-------------------------------------	------------	--	------	------	--------------------



Surge Current

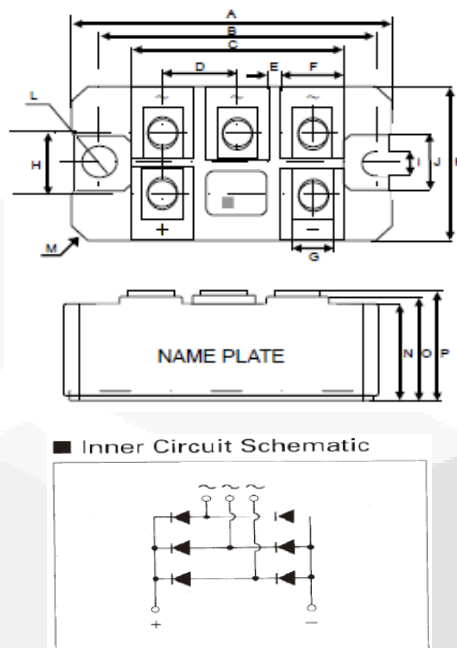


Forward Characteristics



Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.



DIM	Inches		Millimeters	
	Min	Max	Min	Max
A	3.15	---	80	---
B	2.60	---	66	---
C	2.01	---	51	---
D	0.71	---	18	---
E	0.16	---	4	---
F	0.57	---	14.5	---
G	0.40	---	10.2	---
H	0.63	---	16	---
I	0.26	---	6.7	---
J	0.55	---	14	---
K	1.57	---	40	---
L	$\varnothing 0.26$	---	$\varnothing 6.7$	---
M	4-C5			
N	---	0.90 MAX	---	23 MAX
O	---	1.06 MAX	---	27 MAX
P	---	1.14 MAX	---	29 MAX