

## Three Phase Silicon Bridge Rectifier

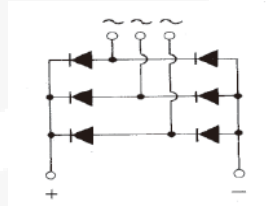
$V_{RRM} = 800\text{ V} - 1600\text{ V}$

$I_F = 100\text{ A}$

### Features

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

### Three Phase Package



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

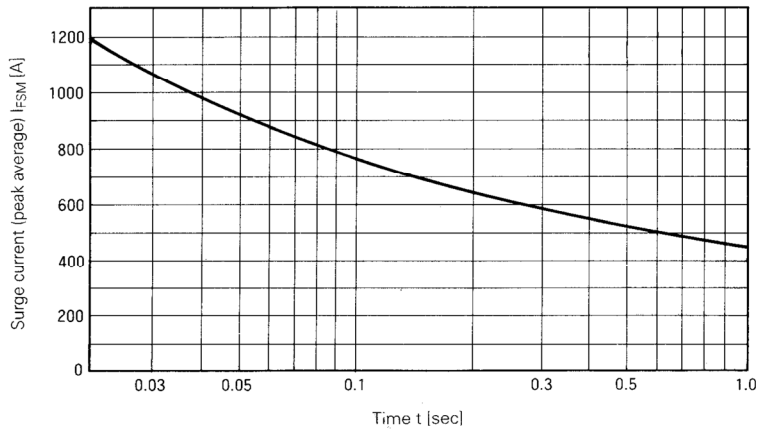
Parameter	Symbol	Conditions	M3P100A-80	M3P100A-160	Unit
Repetitive peak reverse voltage	$V_{RRM}$		800	1600	V
Non-repetitive peak reverse voltage	$V_{RSM}$		880	1700	V
Continuous forward current	$I_F$	$T_C \leq 103\text{ }^\circ\text{C}$	100	100	A
Surge non-repetitive forward current, Half Sine Wave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

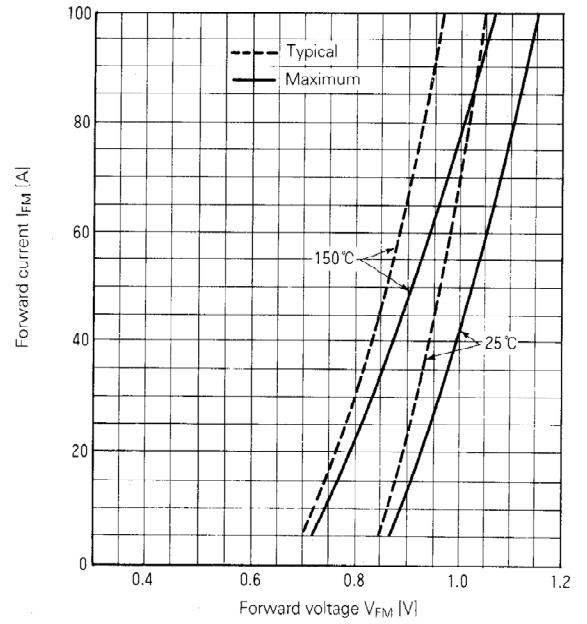
Parameter	Symbol	Conditions	M3P100A-80	M3P100A-160	Unit
Diode forward voltage	$V_F$	$I_F = 100\text{ A}$ , $T_j = 25\text{ }^\circ\text{C}$	1.15	1.15	V
Reverse current		$V_R = V_{RRM}$ , $T_j = 150\text{ }^\circ\text{C}$	10	10	mA

### Thermal characteristics

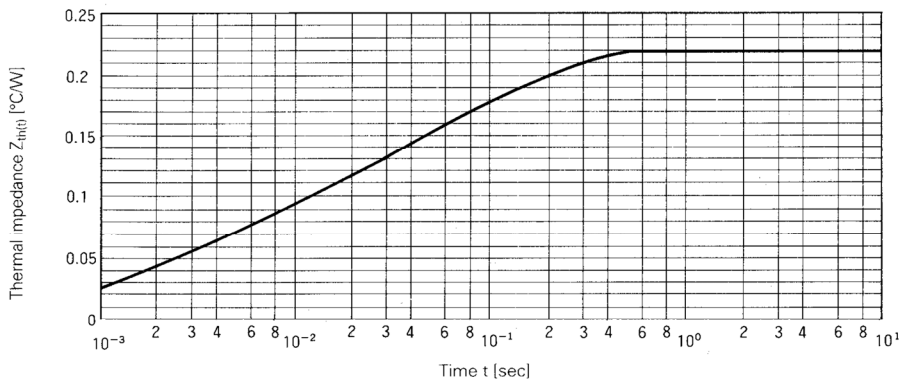
Thermal resistance, junction - case	$R_{thJC}$		0.22	0.22	$^\circ\text{C/W}$
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**Surge Current**

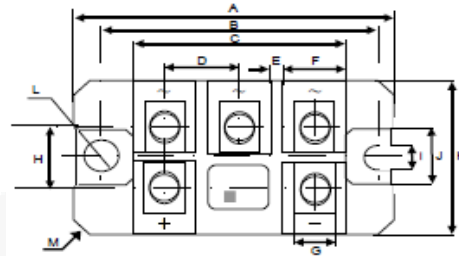


**Forward Characteristics**

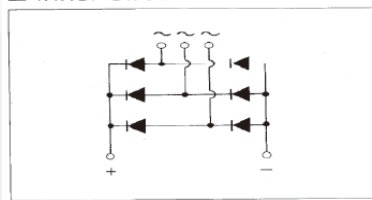


## Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.



■ Inner Circuit Schematic



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	φ 0.26	---	φ 6.7	---
M	4-C5			
N	---	0.90 MAX	---	23 MAX
O	---	1.06 MAX	---	27 MAX
P	---	1.14 MAX	---	29 MAX