

Silicon Standard Recovery Three Phase Devices

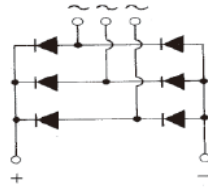
$$V_{RRM} = 400 \text{ V} - 600 \text{ V}$$

$$I_{F(AV)} = 75 \text{ A}$$

Features

- High Surge Capability
- Types from 400 V to 600 V V_{RRM}
- Not ESD Sensitive

Three Phase Package



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

Parameter	Symbol	Conditions	M3P75A-40	M3P75A-60	Unit
Repetitive peak reverse voltage	V_{RRM}		400	600	V
DC blocking voltage	V_{DC}		400	600	V
Operating temperature	T_j		-55 to 150	-55 to 150	$^\circ\text{C}$
Storage temperature	T_{stg}		-55 to 150	-55 to 150	$^\circ\text{C}$

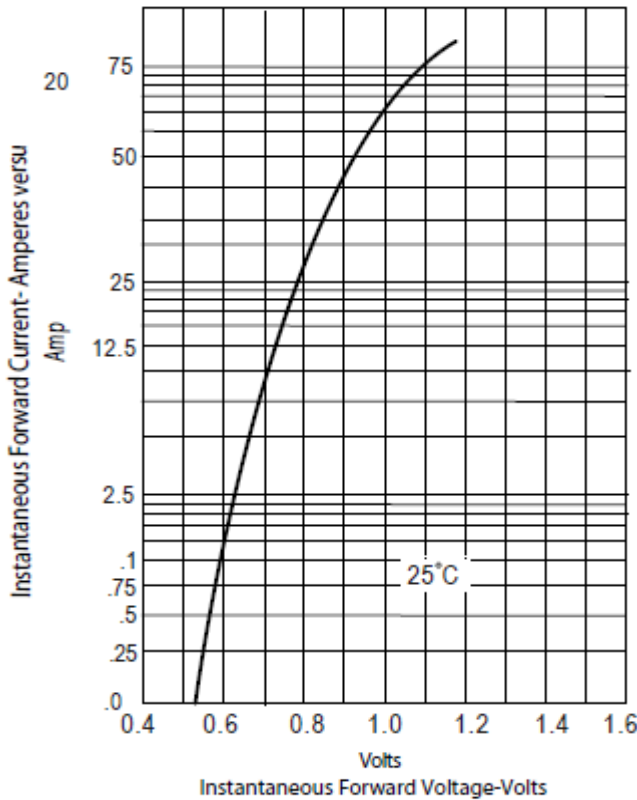
Electrical characteristics, at $T_j = 25^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Conditions	M3P75A-40	M3P75A-60	Unit
Average forward current (per leg)	$I_{F(AV)}$	$T_C = 120^\circ\text{C}$	75	75	A
Peak forward surge current	I_{FSM}	$t_p = 8.3 \text{ ms}$, half sine	1000	1000	A
Maximum instantaneous forward voltage (per leg)	V_F	$I_{FM} = 75 \text{ A}$, $T_j = 25^\circ\text{C}$	1.10	1.10	V
Maximum instantaneous reverse current at rated DC blocking voltage (per leg)	I_R	$T_j = 25^\circ\text{C}$	10	10	μA
		$T_j = 150^\circ\text{C}$	10	10	mA

Thermal characteristics

Maximum thermal resistance, junction - case (per leg)	$R_{\theta jc}$		0.60	0.60	$^\circ\text{C/W}$
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Figure.1-Typical Forward Characteristics



Figur.2-Forward Derating Curve

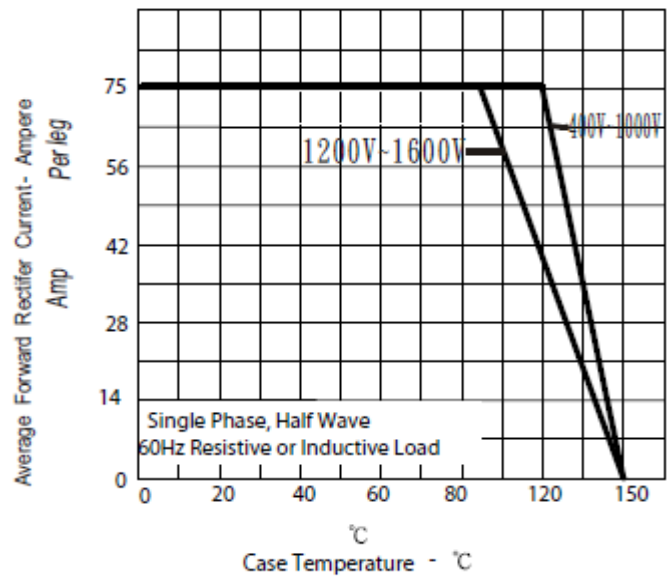


Figure.3-Peak Forward Surge Current

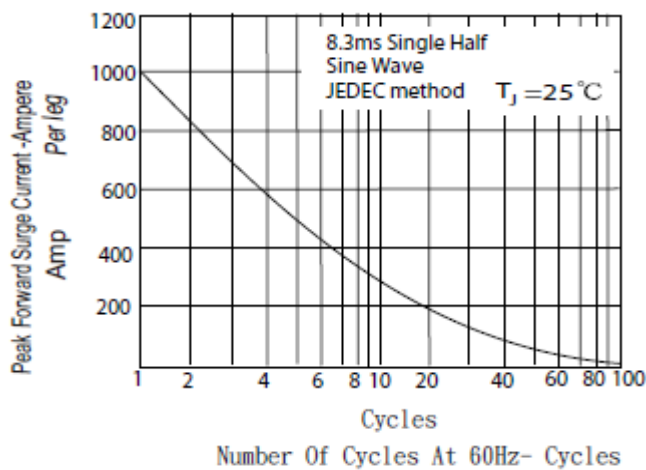
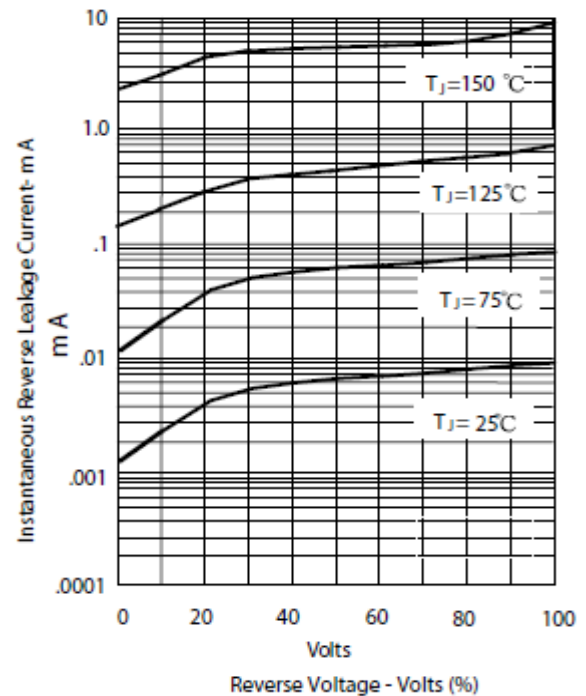
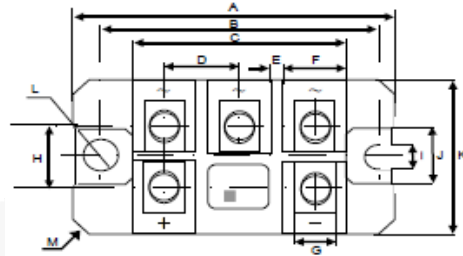


Figure.4- Typical Reverse Characteristics

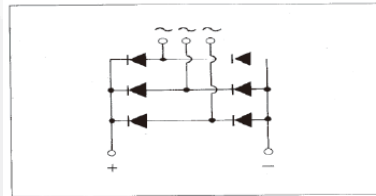


Package dimensions and terminal configuration

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

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