

M3P75A-80 thru M3P75A-160

Silicon Standard Recovery Diode

 $V_{RRM} = 800 \text{ V} - 1600 \text{ V}$ $I_F = 75 \text{ A}$

Features

- · Terminals and the mounting plate are electrically isolated
- \bullet Types up to 1600 V V_{RRM}
- Modules can be installed in the same cooling fin as other modules, thus saving installation space
- Diode chips are coated with a glass of zinc oxide, making them highly resistant to temperature and huminity variation
- 6 diode chips are connected to the 3-phase bridge rectifying circuit inside the module; a cost effective feature

Applications

- · Inverters for AC motors
- Power supply units for DC motors
- · DC power supply units for battery cl
- General purpose DC power supply

Three Phase Package



Maximum ratings, at $T_i = 25$ °C, unless otherwise specified

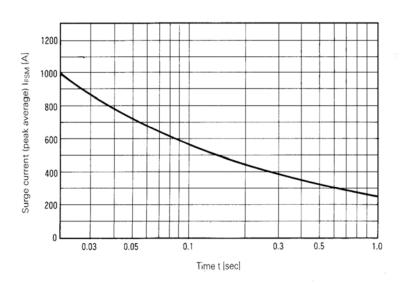
Parameter	Symbol	Conditions	M3P75A-80	M3P75A-160	Unit
Repetitive peak reverse voltage	V_{RRM}	T _J =25°C, I _R =25 μA	800	1600	V
Non-repetitive peak reverse voltage	V_{RSM}	T _J =25°C, I _R =25 μA	880	1700	V
Continuous forward current	I _F	T _C ≤ 103 °C	75	75	Α
Surge non-repetitive forward current, Half Sine Wave	I _{F,SM}	$T_C = 25 ^{\circ}\text{C}, t_p = 8.3 \text{ms}$	1000	1000	Α
I ² t	l ² t		4400	4400	A^2S
Operating temperature	T _j		-40 to 150	-40 to 150	°C
Storage temperature	T _{stg}		-40 to 125	-40 to 125	°C
Tightening torque			25±2	25±2	kg-cm
Vibration resistance			5	5	G
Dielectric strength			2000 VAC 1 min	2000 VAC 1 min	
Net weight			133	133	g

Electrical characteristics, at Tj = 25 °C, unless otherwise specified

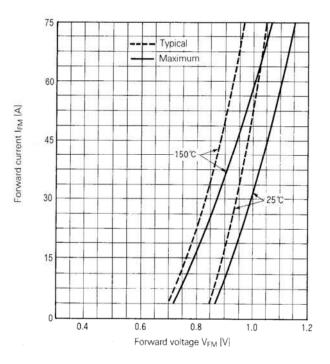
Parameter	Symbol	Conditions	M3P75A-80	M3P75A-160	Unit
Diode forward voltage	V_{F}	I _F = 75 A, T _j = 25 °C	1.15	1.15	V
Reverse current		$V_R = V_{RRM}$, $T_j = 150 ^{\circ}C$	10	10	mA
Thermal characteristics					
Thermal resistance, junction - case	R_{thJC}		0.25	0.25	°C/W



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Surge Current



Forward Characteristics

