Silicon Standard Recovery Diode

V_{RRM} = 800 V - 1600 V

I_F = 75 A

Features

- Terminals and the mounting plate are electrically isolated
- 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

Three Phase Package

Applications

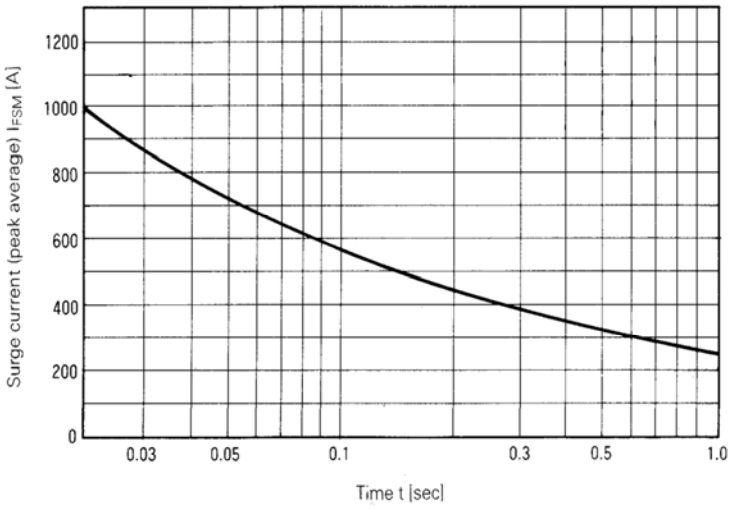
- Inverters for AC motors
- Power supply units for DC motors
- DC power supply units for battery cl
- General purpose DC power supply

Maximum ratings, at T_j = 25 °C, unless otherwise specified

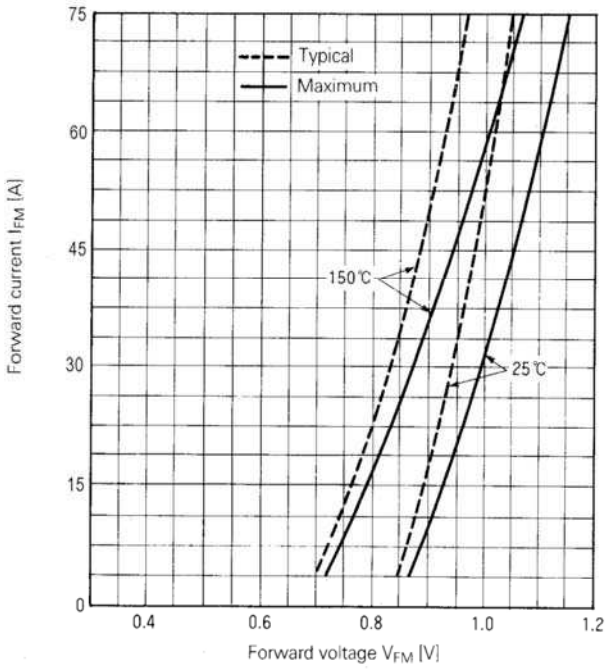
Parameter	Symbol	Conditions	M3P75A-80	M3P75A-160	Unit
Repetitive peak reverse voltage	V_{RRM}	T_J=25°C, I_R=25 µA	800	1600	V
Non-repetitive peak reverse voltage	V_{RSM}	T_J=25°C, I_R=25 µA	880	1700	V
Continuous forward current	I_F	$T_C \leq$ 103 °C	75	75	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	T_C = 25 °C, t_p = 8.3 ms	1000	1000	A
I^2t	I^2t		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 ℃, 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 °C	10	10	mA
Thermal characteristics					
Thermal resistance, junction - case	R_{thJC}		0.25	0.25	°C/W



Surge Current



Forward Characteristics