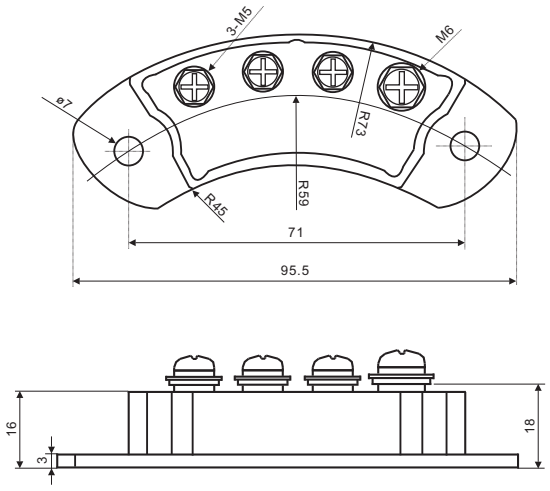
Arc Type Rectifier Module, 50A

MXG50-08 Thru MXG50-12

MXY50-08 Thru MXY50-12



All dimensions in millimeters

FEATURES

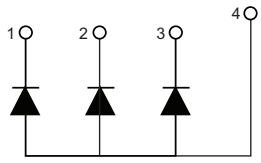
- Typical IR less than 2.0 μA
- High surge current capability
- Low thermal resistance
- Compliant to RoHS
- Isolation voltage up to 2500V

TYPICAL APPLICATIONS

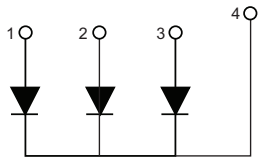
General purpose use in AC/DC bridge full wave rectification for big power generator, field supply for DC motor, industrial automation applications.

ADVANTAGE

- International standard package
  Epoxy meets UL 94 V-O flammability rating
- Small volume, light weight
- Small thermal resistance
- High heat-conduction rate
- Low temperature rise
- Weight:120g (4.2 ozs)



MXG50



MXY50

PRIMARY CHARACTERRISTICS	
$I_{F(AV)}$	50A
V_{RRM}	800V to 1200V
I_{FSM}	450A
I_R	5 μA
V_F	1.30V
$T_{J\ max.}$	150°C

MAJOR RATINGS AND CHARACTERISTICS (T_A = 25°C unless otherwise noted)					
PARAMETER	SYMBOL	MXG50/MXY50			UNIT
		08	10	12	
Maximum repetitive peak reverse voltage	V_{RRM}	800	1000	1200	V
Peak reverse non-repetitive voltage	V_{RSM}	900	1100	1300	V
Maximum DC blocking voltage	V_{DC}	800	1000	1200	V
Maximum average forward rectified output current	$I_{F(AV)}$	50			A
Peak forward surge current single sine-wave superimposed on rated load	I_{FSM}	450			A
Rating (non-repetitive, for t greater than 1 ms and less than 8.3 ms) for fusing	I^2t	1012			A^2s
RMS isolation voltage from case to leads	V_{ISO}	2500			V
Operating junction storage temperature range	T_J	-40 to 150			°C
Storage temperature range	T_{stg}	-40 to 125			°C

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted)						
PARAMETER	TEST CONDITIONS	SYMBOL	MXG50/MXY50			UNIT
			08	10	12	
Maximum instantaneous forward drop per diode	I_F = 157A	V_F	1.30			V
Maximum reverse DC current at rated DC blocking voltage per diod	T_A = 25°C	I_R	5			μA
	T_A = 150°C		3			mA

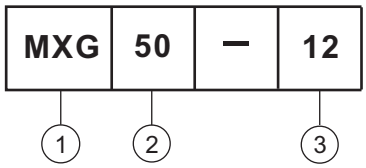
THERMAL AND MECHANICAC (T_A = 25°C unless otherwise noted)						
PARAMETER	TEST CONDITIONS	SYMBOL	MXG50/MXY50			UNIT
			08	10	12	
Typical thermal resistance junction to case	Single-side heat dissipation, sine half wave	$R_{\theta JC}$ (1)	1.0			°C/W
Mounting torque (2)	A mounting compound is recommended and the torque should be rechecked after a period of 3 hours to allow for the spread of the compound.		2.0 to 2.5			Nm
Approximate weight			120			g

Notes

(1) With heatsink, single side heat dissipation, half sine wave.

(2) M5 & M6 screws.

Device code



1 - MXG = for common anode
MXY = for common cathode

2 - $I_{F(AV)}$ rating: "50" for 50A

3 - Voltage code: code x 100 = V_{RRM}