

PCB power relays

Order code	Manufacturer code	Description
60-4610	n/a	M1-SS-212L 12V 5A DPDT RELAY
60-4612	n/a	M1-SS-224L 24V 5A DPDT RELAY

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The enclosed information is believed to be correct, Information may change 'without notice' due to product improvement. Users should ensure that the product is suitable for their use. E. & O. E.	Revision A 04/07/2003

Miniature relays DPDT 5A

Main features:

1. Switching capacity 5A is available with 2 transfer contact form.
2. Slim type and small occupying area can offer high density P.C. board technique
3. Insulation distance of 8mm min. is designed. By employment of insulation material to meet JIS insulation class E, dielectric strength of 5000V min. and surge resistance of 10000V min. is realised.
4. Employment of suitable plastic materials is applied to meet high temperature and various chemical solution.
5. Complete protective construction from dust and soldering flux.



GS part No.	Coil	Resistance
ML-SS-212L	12V	270Ω
ML-SS-224L	24V	1100Ω

Coil specifications:

Nominal voltage	Nominal current (mA)	Coil resistance (Ω ±10%)	Power consumption (W)	Pull-in voltage (VDC)	Drop out voltage (VDC)	Maximum allowable voltage
12VDC	44.4	270	Abt. 0.54W	80% maximum	5% minimum	130%
24VDC	21.8	1,100				

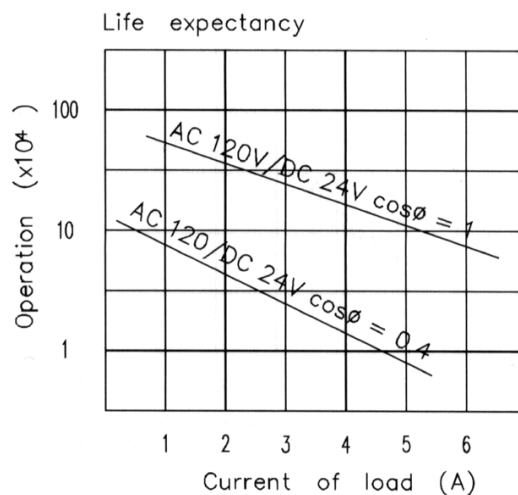
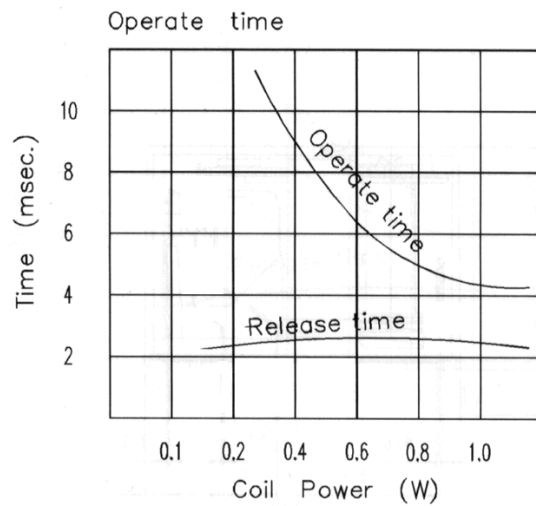
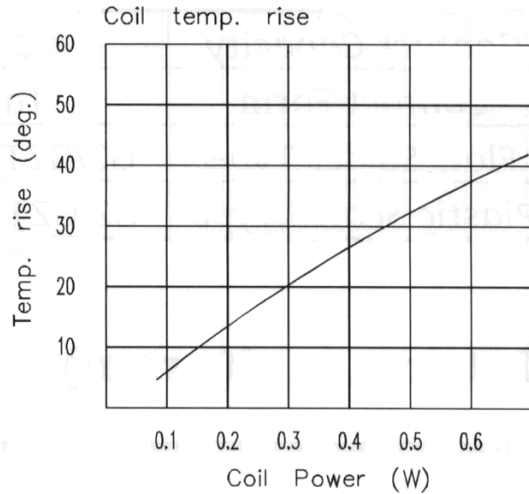
Contact rating:

Contact capacity Resistive load: (Cos Ø = 1)	5A/120VAC 5A/350VAC 5A/30VDC
Inductive load: (Cos Ø = 0.4 L/R = 7 mSec)	2A/120VAC 2A/240VAC 2A/30VDC
Rated carrying current:	5A
Max. allowable voltage:	AC 240V DC 110V
Max. allowable current:	5A
Max. allowable power force:	600VA 150W
Reference minimum applicable load:	DC10V 10mA
Contact material:	AgCdO

Performance (at initial value):

Contact resistance:	100mΩ Max.
Operate time:	20m Sec. Max.
Release time:	8 mSec. Max.
Dielectric strength Between coil and contacts: Between contacts:	AC 5,000V at 50/60 Hz for 1 minute AC 1,000V at 50/60 Hz for 1 minute
Surge resistance:	1,000V(between coil and contact 1x40μSec)
Insulation resistance:	100MΩ min.
Max. on/off switching Electrical: Mechanical:	300 operations per minute 30 operations per minute
Operating ambient temperature range:	-30 to +55°C (No condensation of water drop)
Operating humidity:	45 to 85%RH.
Coil temperature rise:	35 degree max. (at rated coil voltage)
Vibration Endurance: Error operation:	10 to 55Hz dual amplitude width 1.5mm 10 to 55Hz dual amplitude width 1.5mm
Shock Endurance: Error operation:	100G minimum 10G Minimum
Life expectancy Mechanical: Electrical:	10,000,000 operations minimum 100,000 operations minimum
Weight:	13g

Reference data:



Outline (units: mm):

