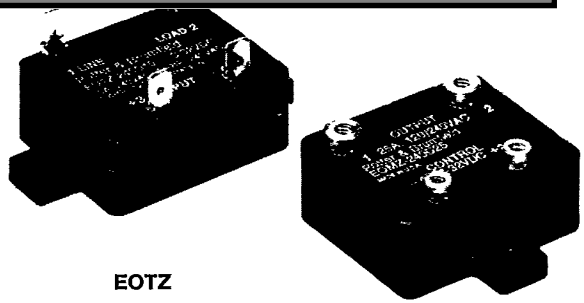
NEW 25 AMP MODEL AVAILABLE

EOMZ/EOTZ series



EOTZ

EOMZ

0.02 to 25 AMP
LOW-COST SOLID STATE
AC RELAY

File E22575 & E29244
File LR15734

FEATURES

- All solid state relay.
- 4,000V rms optical isolation.
- Zero voltage and random turn-on.
- Low profile, plastic base package.
- 3 to 32VDC input.
- SPST-NO solid state triac output.
- 0.02 to 25A rms @ 20 to 280VAC output.
- .250" (6.35 mm) quick connect or screw terminals.
- High immunity to false operation.
- CMOS, TTL, I^2L, ECL & HTL compatible.
- UL File 22575.
- CSA File LR15734.

ENGINEERING DATA

Form: 1 Form A (SPST-NO).
Duty: Continuous.
Temperature Range:
Storage: -40°C to +85°C
Operating Ambient: -30°C to +80°C (Refer to output specifications and current derating curves.)
Approximate Weight: 2.0 oz. (56 g).
Case and Mounting: Refer to Outline Dimensions.
Termination: Refer to Outline Dimensions.
Isolation: 4,000V rms, 60 Hz.
Insulation Resistance: 10^9 ohms.
Transient Noise Immunity: >3,000Vp-p per NEMA ICS1-109.

ORDERING INFORMATION

Typical Part Number ➤	EOTZ	-240	D	15

1. **BASIC SERIES**
   EOTZ = Low profile, plastic base solid state relay with 0.25" (6.35 mm) quick connect terminals.
   EOMZ = Low profile, plastic base solid state relay with screw terminals.
2. **LINE VOLTAGE:** 240 = 20-280VAC, 25-65 Hz.
3. **INPUT TYPE & VOLTAGE:** D = 3-32VDC.
   (**Note:** Input polarity of EOTZ is opposite that of EOMZ, see Outline Dimensions.)
4. **MAXIMUM SWITICH RATING:** 15 = 15A rms @ 25°C, mounted to heatsink.
   25 = 25A rms @ 25°C, mounted to heatsink.
5. **OPTIONS:** Leave Blank = Zero voltage turn-on.
   R = Random voltage turn-on (phase controllable).

STOCK ITEMS – The following items are normally maintained in stock for immediate delivery.

EOMZ–240D15	EOTZ–240D15
EOMZ–240D15R	EOTZ–240D15R
EOMZ–240D25	EOTZ–240D25
EOMZ–240D25R	EOTZ–240D25R

INPUT SPECIFICATIONS

Parameter	Conditions	Units	EOTZ/EOMZ
Input Voltage (V_i)	Range	VDC	3-32
Reverse Voltage Protection	Max.	VDC	32
Must Operate Voltage (V_{on})	Max.	VDC	3
Must Release Voltage	Min.	VDC	1
Input Current	Max. @ rated V_i	mA	10
	Max. @ Max. V_i	mA	15

OUTPUT SPECIFICATIONS (@ +25° C unless otherwise specified)

Parameter	Conditions	Units	EOTZ/EOMZ (15A)	EOTZ/EOMZ (25A)
Load Voltage	Nom.	V rms	120/240	120/240
	Range	V rms	20-280	20-280
Repetitive Blocking Voltage	Min	V peak	±600	±600
Steady State Load Current @ 25 C (See Derating Curves)	Max (I.)	A rms	15	25
	Min. (I)	mA rms	20	20
Current Derating Factor for Rise from +25°C to +80°C Ambient	@I.	A/°C	.2	.33
Non-Repetitive Surge Current for 1 cycle	60 Hz.	A peak	150	250
	50 Hz	A peak	135	225
Repetitive Surge Current	100 ms	A peak	30	50
Leakage Current at 240VAC Load Voltage*	Max	mA rms	4	4
	Typ	mA rms	2	2
On-State Voltage Drop	Max. @ I.	V Peak	1.6	1.6
Static dv/dt	Min	V/µs	200	200
	Typ.	V/µs	400	400
Commutating dv/dt (Inductive load switching for loads of listed power factor (PF) or greater)	From I. to I	PF	.4	.4
Turn On Time	Max @ 60 Hz	ms	8.3 for zero turn-on models 0.1 for random turn-on models	8.3 for zero turn-on models 0.1 for random turn-on models
Turn Off Time (Next Zero Current)	Max @ 60 Hz	ms	8.3	8.3
I^2t rating	t = 8.3 ms		93	259

* Leakage current at 120VAC is equal to 1/2 values listed for 240VAC

HEATSINK REQUIREMENTS

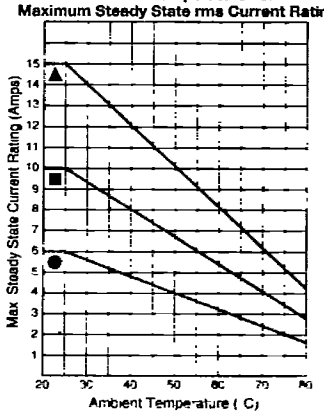
15A Unit Current @ 25°C	25A Unit Current @ 25°C	Required Thermal Resistance Rating	Typical Flat Surface Area Per Unit
● 6	● 7.0	None	None
■ 10	■ 13.5	2.0°C/W	36 in² (232 cm²)
▲ 15		1.0°C/W	144 in² (929 cm²)
	▼ 25.0	0.8°C/W	225 in² (1452 cm²)

● = Free Air Rating

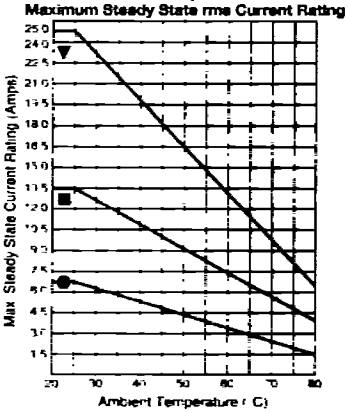
Note: Relays should be mounted securely to the heatsink using thermal joint compound between the relay and heatsink.

ELECTRICAL CHARACTERISTICS

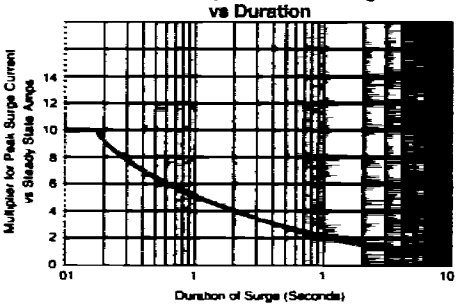
15A UNITS
Ambient Temperature vs. Maximum Steady State rms Current Rating



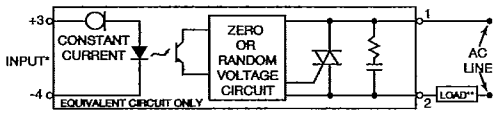
25A UNITS
Ambient Temperature vs. Maximum Steady State rms Current Rating



15A & 25A UNITS
Allowable Non-repetitive Peak Surge Current vs Duration

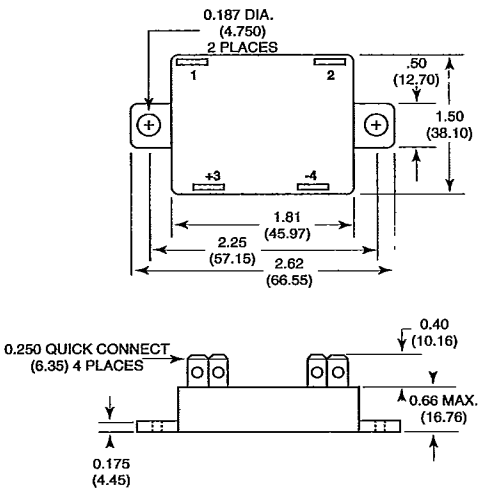


OPERATING DIAGRAM

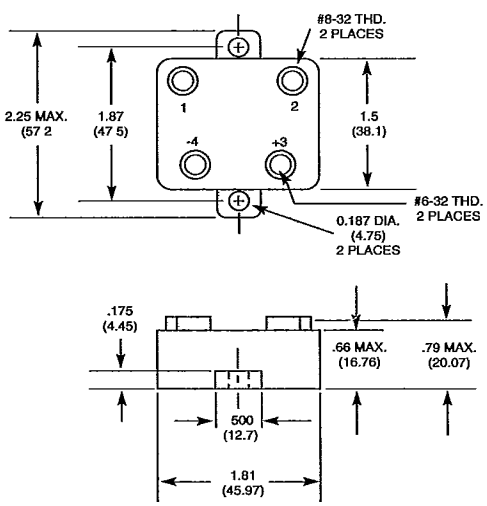


* Observe terminal numbers, as EOTZ input terminal location is opposite that of EOMZ.
** Load can be placed in series with terminal number 1 if desired.

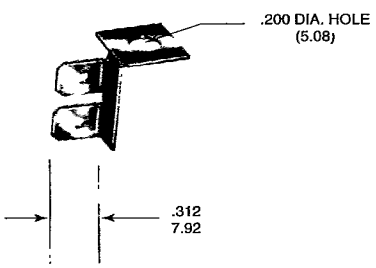
EOTZ OUTLINE DIMENSIONS



EOMZ OUTLINE DIMENSIONS



QUICK CONNECT ADAPTER FOR EOMZ



Dual .250" (6.35 mm) Quick Connect 26A945