SURFACE MOUNT PTC RESETTABLE FUSE
FSMD-1812R Series : 1812 size

RoHS

FEATURES

- Applications : All high-density boards
- Product Features : Faster time to trip and Lower resistnace than standard SMD devices
- Operation Current: 0.10A ~ 3A
- Maximum Voltage: 6V~60Vdc
- Temperature Range: -40°C to 85°C

AGENCY RECOGNITION

Made for RFE by UL shop Fuzetec

- UL (E211981)
- C-UL (E211981)
- TÜV (R50004084/R50090556)

ELECTRICAL CHARACTERISTICS (23°C)

Part Number	Hold Current	Trip Current	Rated Voltage	Maximum Current	Typical Power	Max. Time to Trip		Resistance	
						Current	Time	R min	R1 max
	I_H, A	I_T, A	V_{MAX}, Vdc	I_{MAX}, A	Pd, W	A	Sec	Ohms	Ohms
FSMD010-1812R	0.10	0.30	60	100	0.8	8	0.02	1.600	15.00
FSMD014-1812R	0.14	0.30	60	100	0.8	8	0.008	1.200	6.50
FSMD020-1812R	0.20	0.40	30	100	0.8	8	0.02	0.800	5.00
FSMD020-60-1812R	0.20	0.40	60	100	0.8	8	0.02	0.800	5.00
FSMD030-1812R	0.30	0.60	30	100	0.8	8	0.10	0.200	1.75
FSMD035-1812R	0.35	0.70	16	100	0.8	8	0.10	0.320	1.50
FSMD035-30-1812R	0.35	0.70	30	100	0.8	8	0.10	0.320	1.50
FSMD050-1812R	0.50	1.00	16	100	0.8	8	0.15	0.150	1.00
FSMD050-30-1812R	0.50	1.00	30	100	0.8	8	0.15	0.150	1.00
FSMD075-1812R	0.75	1.50	16	100	0.8	8	0.20	0.110	0.45
FSMD075-24-1812R	0.75	1.50	24	100	1.0	8	0.20	0.110	0.29
FSMD075-33-1812R	0.75	1.50	33	100	1.0	8	0.20	0.110	0.40
FSMD110-1812R	1.10	2.20	8	100	0.8	8	0.30	0.040	0.210
FSMD110-16-1812R	1.10	2.20	16	100	0.8	8	0.50	0.060	0.180
FSMD110-24-1812R	1.10	2.20	24	100	1.0	8	0.50	0.060	0.200
FSMD110-33-1812R	1.10	2.20	33	100	0.8	8	0.50	0.060	0.200
FSMD125-1812R	1.25	2.50	6	100	0.8	8	0.40	0.050	0.140
FSMD125-16-1812R	1.25	2.50	16	100	0.8	8	0.40	0.050	0.140
FSMD150-1812R	1.50	3.00	8	100	0.8	8	0.50	0.040	0.110
FSMD150-12-1812R	1.50	3.00	12	100	1.0	8	0.50	0.040	0.110
FSMD150-24-1812R	1.50	3.00	24	100	1.0	8	1.50	0.040	0.120
FSMD160-1812R	1.60	3.20	8	100	0.8	8	0.50	0.030	0.100
FSMD160-12-1812R	1.60	3.20	12	100	1.0	8	1.00	0.030	0.100
FSMD160-16-1812R	1.60	3.20	16	100	1.0	8	1.00	0.030	0.100
FSMD200-1812R	2.00	3.50	8	100	1.0	8	2.00	0.020	0.070
FSMD200-16-1812R	2.00	3.50	16	100	1.0	8	5.00	0.020	0.085
FSMD260-1812R	2.60	5.00	8	100	1.0	8	2.00	0.015	0.047
FSMD260-13-1812R	2.60	5.00	13.2	100	1.3	8	5.00	0.015	0.050
FSMD260-16-1812R	2.60	5.00	16	100	1.3	8	5.00	0.015	0.050
FSMD300-1812R	3.00	5.00	6	100	1.0	8	4.00	0.012	0.040

I_H=Hold current-maximum current at which the device will not trip at 23°C still air.
I_T=Trip current-maximum current at which the device will always trip at 23°C still air.
V_{MAX}=Maximum voltage device can withstand without damage at its rated current.
I_{MAX}=Maximum fault current device can withstand without damage at rated voltage (V_{MAX}).
Pd=Typical power dissipated from device when in the tripped state in 23°C still air environment.
R_{MIN}=Minimum device resistance at 23°C.
$R1_{MAX}$=Maximum device resistance at 23°C measured 1 hour after tripping or reflow soldering of 260°C for 20 second.

Termination pad characteristics
Termination pad materials: Pure Tin

NOTE: All Specifications subject to change without notice.

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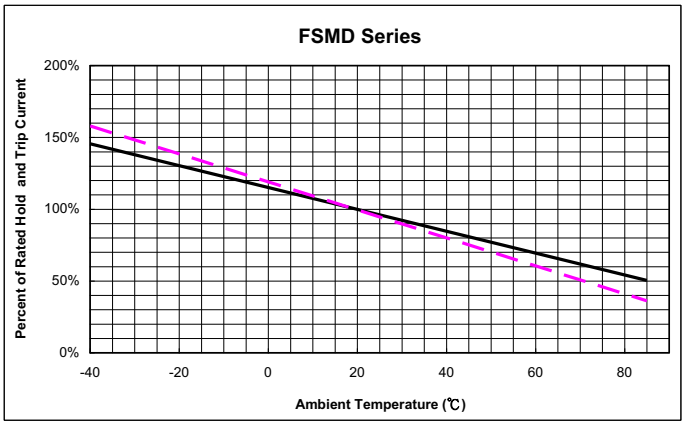
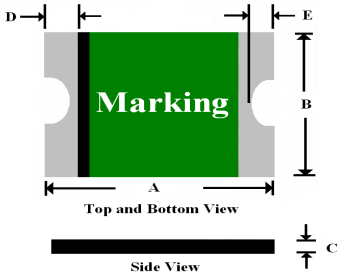
THERMAL DERATING CURVE



A= FSMD075-R, 075-24R, 075-33R, 110-R, 110-16-R, 110-24R, 110-33R, 125-R, 125-16R, 150-R, 150-12R, 150-24R, 160-R, 160-12R, 160-16R, 200R, 200-16R, 260R, 260-13R, 260-16R, 300R

B= FSMD010-R, 014-R, 020-R, 020-60-R, 030-R, 035-R,035-30-R,050-R, 050-30-R

DIMENSIONS (mm)



Part Number	A		B		C		D		E	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
FSMD010-1812R	4.37	4.73	3.07	3.41	0.60	0.90	0.30	0.95	0.25	0.65
FSMD014-1812R	4.37	4.73	3.07	3.41	0.60	0.90	0.30	0.95	0.25	0.65
FSMD020-1812R	4.37	4.73	3.07	3.41	0.60	0.90	0.30	0.95	0.25	0.65
FSMD020-60-1812R	4.37	4.73	3.07	3.41	0.60	0.90	0.30	0.95	0.25	0.65
FSMD030-1812R	4.37	4.73	3.07	3.41	0.40	0.70	0.30	0.95	0.25	0.65
FSMD035-1812R	4.37	4.73	3.07	3.41	0.40	0.70	0.30	0.95	0.25	0.65
FSMD035-30-1812R	4.37	4.73	3.07	3.41	0.40	0.70	0.30	0.95	0.25	0.65
FSMD050-1812R	4.37	4.73	3.07	3.41	0.35	0.65	0.30	0.95	0.25	0.65
FSMD050-30-1812R	4.37	4.73	3.07	3.41	0.45	0.75	0.30	0.95	0.25	0.65
FSMD075-1812R	4.37	4.73	3.07	3.41	0.35	0.65	0.30	0.95	0.25	0.65
FSMD075-24-1812R	4.37	4.73	3.07	3.41	0.80	1.55	0.25	0.95	0.25	0.65
FSMD075-33-1812R	4.37	4.73	3.07	3.41	0.80	1.55	0.25	0.95	0.25	0.65
FSMD110-1812R	4.37	4.73	3.07	3.41	0.25	0.55	0.30	0.95	0.25	0.65
FSMD110-16-1812R	4.37	4.73	3.07	3.41	0.25	0.90	0.30	0.95	0.25	0.65
FSMD110-24-1812R	4.37	4.73	3.07	3.41	0.80	1.30	0.25	0.95	0.25	0.65
FSMD110-33-1812R	4.37	4.73	3.07	3.41	0.80	1.30	0.25	0.95	0.25	0.65
FSMD125-1812R	4.37	4.73	3.07	3.41	0.25	0.55	0.30	0.95	0.25	0.65
FSMD125-16-1812R	4.37	4.73	3.07	3.41	0.50	1.00	0.30	0.95	0.25	0.65
FSMD150-1812R	4.37	4.73	3.07	3.41	0.25	0.55	0.30	0.95	0.25	0.65
FSMD150-12-1812R	4.37	4.73	3.07	3.41	0.60	1.10	0.25	0.95	0.25	0.65
FSMD150-24-1812R	4.37	4.73	3.07	3.41	0.60	1.55	0.25	0.95	0.25	0.65
FSMD160-1812R	4.37	4.73	3.07	3.41	0.25	0.90	0.30	0.95	0.25	0.65
FSMD160-12-1812R	4.37	4.73	3.07	3.41	0.60	1.35	0.25	0.95	0.25	0.65
FSMD160-16-1812R	4.37	4.73	3.07	3.41	0.60	1.35	0.25	0.95	0.25	0.65
FSMD200-1812R	4.37	4.73	3.07	3.41	0.55	1.20	0.25	0.95	0.25	0.65
FSMD200-16-1812R	4.37	4.73	3.07	3.41	0.60	1.55	0.25	0.95	0.25	0.65
FSMD260-1812R	4.37	4.73	3.07	3.41	0.55	1.20	0.25	0.95	0.25	0.65
FSMD260-13-1812R	4.37	4.73	3.07	3.41	0.80	1.55	0.25	0.95	0.25	0.65
FSMD260-16-1812R	4.37	4.73	3.07	3.41	0.80	1.55	0.25	0.95	0.25	0.65
FSMD300-1812R	4.37	4.73	3.07	3.41	0.80	1.55	0.25	0.95	0.25	0.65

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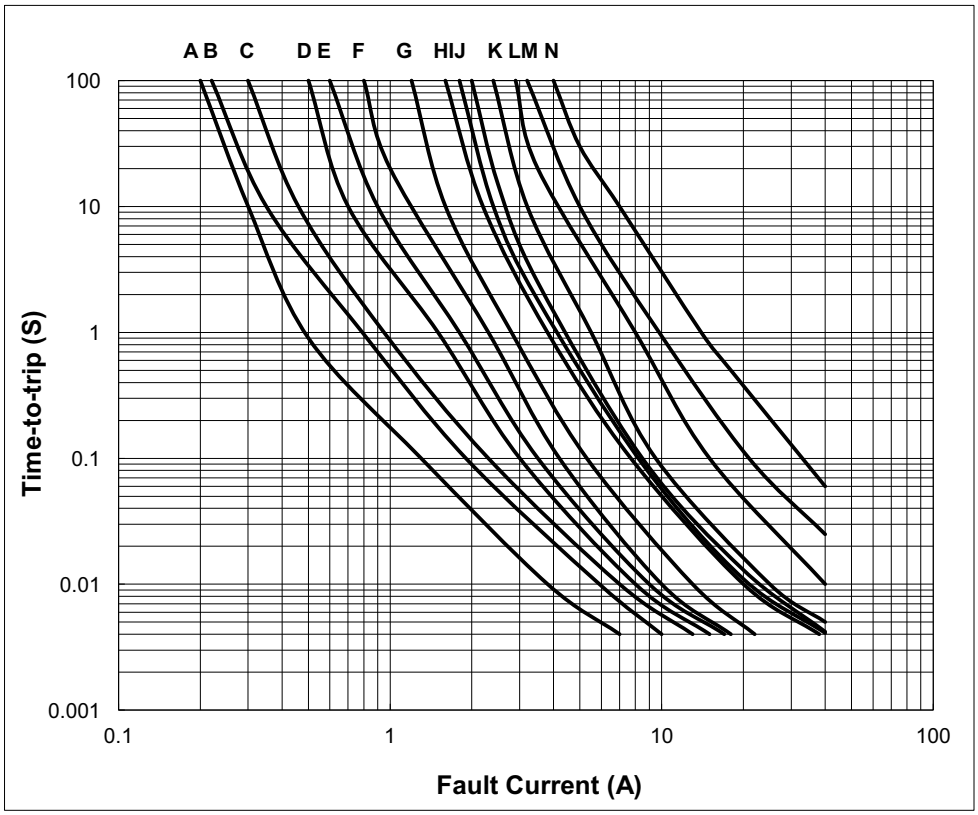
TYPICAL TIME-TO-TRIP AT 23°C

A = FSMD010-R
B = FSMD014-R
C = FSMD020-R / 020-60-R
D = FSMD030-R
E = FSMD035-R / 035-30-R
F = FSMD050-R / 050-30-R
G = FSMD075-R / 075-24R / 075-33R
H = FSMD110-R / 110-16-R / 110-24R / 110-33R
I = FSMD125-R / 125-16R
J = FSMD150-R / 150-12R / 150-24R
K = FSMD160-R / 160-12R / 160-16R
L = FSMD200R / 200-16R
M = FSMD260R / 260-13R / 260-16R
N = FSMD300R



PART NUMBER SYSTEM & MARKING SYSTEM

Part Numbering System

F S M D □ □ □ - 1812R
Current Rating

OR

F S M D □ □ □ - □ □ - 1812R
Voltage Rating
Current Rating

Part Marking System

F110
Example

F □ □ □
Part Identification

F 110 / 16
Example

F □ □ □ / □ □
Part Identification

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