

FSMD2016 Series



Application

All high-density boards

Product Features

Small surface mount, Solid state, Faster time to trip than standard SMD devices, Lower resistance than standard SMD devices



Operation Current

0.30A~2.00A

Maximum Voltage

6V~60V_{DC}



Temperature Range

-40°C to 85°C

Agency Recognition

AGENCY	AGENCY FILE NUMBER
	UL(E211981)
	C-UL(E211981)
	TÜV (R50090556)



SVHC Compliant

Electrical Characteristics (23°C)

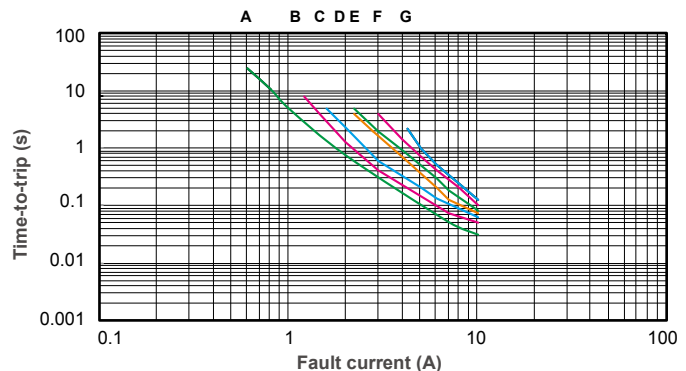
Part Number	Hold Current	Trip Current	Rated Voltage	Max. Current	Typ. Power	Max. Time to trip		Resistance	
						Current	Time	R _{MIN}	R _{1MAX}
	I _H , A	I _T , A	V _{MAX} , V _{DC}	I _{MAX} , A	P _d , W	A	Sec	Ohms	Ohms
FSMD030-2016-R	0.30	0.60	60	100	1.4	1.5	3.0	0.400	2.300
FSMD050-2016R	0.55	1.10	60	100	1.4	2.5	5.0	0.200	1.000
FSMD075-2016R	0.75	1.50	60	100	1.4	8.0	0.5	0.130	0.900
FSMD100-2016-R	1.10	2.20	15	100	1.4	8.0	0.5	0.070	0.400
FSMD100-33-2016-R	1.10	2.20	33	100	1.4	8.0	0.5	0.070	0.400
FSMD150-2016-R	1.50	3.00	15	100	1.4	8.0	0.8	0.050	0.180
FSMD200-2016-R	2.00	4.20	6	100	1.4	8.0	3.0	0.030	0.100

Thermal Derating for PPTC Device at Various Ambient Temperatures

TEMPERATURE	-40°C	-20°C	0°C	23°C	30°C	40°C	50°C	60°C	70°C	85°C
DERATING %	157%	133%	118%	100%	90%	81%	70%	60%	51%	36%

Typical Time-To-Trip at 23°C

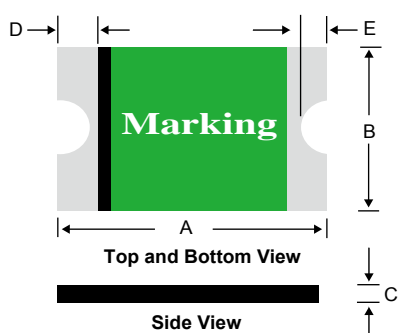
- A = FSMD030-2016-R
- B = FSMD050-2016R
- C = FSMD075-2016R
- D = FSMD100-2016-R
- E = FSMD100-33-2016-R
- F = FSMD150-2016-R
- G = FSMD200-2016-R



NOTE : All Specifications subject to change without notice.

V - Surface Mount PPTC

FSMD2016 Product Dimensions (mm)



Part Number	A		B		C		D		E	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
FSMD030-2016-R	4.72	5.44	3.70	4.43	0.40	1.15	0.30	1.50	0.25	0.65
FSMD050-2016R	4.72	5.44	3.70	4.43	0.40	1.70	0.30	1.50	0.25	0.65
FSMD075-2016R	4.72	5.44	3.70	4.43	0.40	1.70	0.30	1.50	0.25	0.65
FSMD100-2016-R	4.72	5.44	3.70	4.43	0.30	0.70	0.30	1.50	0.25	0.65
FSMD100-33-2016-R	4.72	5.44	3.70	4.43	0.30	0.70	0.30	1.50	0.25	0.65
FSMD150-2016-R	4.72	5.44	3.70	4.43	0.25	0.65	0.30	1.50	0.25	0.65
FSMD200-2016-R	4.72	5.44	3.70	4.43	0.25	0.55	0.30	1.50	0.25	0.65

*For Reflow Soldering Profile information, please refer to P.69 "IX APPENDIX – SMD PRODUCT SOLDER REFLOW RECOMMENDATIONS "

Part Numbering System

FSMD □ □ □ - 2016 R
 FSMD □ □ □ - 2016 - R

└──────────┘
 Current Rating

OR

FSMD □ □ □ - □ □ - 2016 - R

└──────────┘ └──────────┘
 Voltage Rating
 Current Rating

Part Marking System

Example: F030

F □ □ □
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 Part Identification

└──────────┘
 Fuzetec Logo

Example: F 100 33

F □ □ □
 □ □
 └──────────┘
 Part Identification

└──────────┘
 Fuzetec Logo

Package Information

Part Number	Standard Package
FSMD030-2016-R	: 2.0K Reel/Tape
FSMD050-2016R~FSMD075-2016R	: 1.0K Reel/Tape
FSMD100-2016-R~FSMD200-2016-R	: 2.0K Reel/Tape

Physical specifications

Termination pad materials	Pure Tin
Soldering characteristics	Meets EIA specification RS 186-9E, ANSI/J-std-002 Category 3

Warning :



- Each product should be carefully evaluated and tested for their suitability of application.
- Operation beyond the specified maximum ratings or improper use may result in damage and possible electrical arcing and/or flame.
- PPTC device are intended for occasional overcurrent protection. Application for repeated overcurrent condition and/or prolonged trip are not anticipated.
- Avoid contact of PPTC device with chemical solvent, including some inert material such as silicone based oil, lubricant and etc. Prolonged contact will damage the device performance.
- Additional protection mechanism are strongly recommended to be used in conjunction with the PPTC device for protection against abnormal or failure conditions.
- Avoid use of PPTC device in a constrained space such as potting material, housing and containers where have limited space to accommodate device thermal expansion and/or contraction.