

### Low Rho FSMD0603 Series



#### Application

All high-density boards

#### Product Features

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



#### Operation Current

0.25A~1.00A

#### Maximum Voltage

6V~9V<sub>DC</sub>



#### 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)

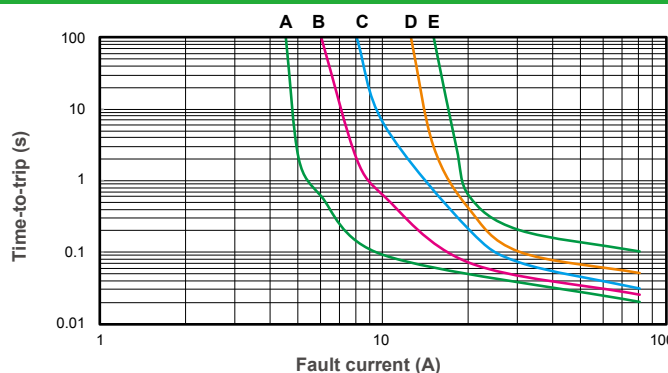
Part Number	Hold Current	Trip Current	Rated Voltage	Max. Current	Typ. Power	Max. Time to trip		Resistance	
						Current	Time	R <sub>MIN</sub>	R <sub>1MAX</sub>
						I <sub>H</sub> , A	I <sub>T</sub> , A	V <sub>MAX</sub> , V <sub>DC</sub>	I <sub>MAX</sub> , A
FSMD025-0603RZ	0.25	0.55	9	100	0.5	8.0	0.08	0.500	3.000
FSMD035-0603RZ	0.35	0.75	6	100	0.5	8.0	0.10	0.200	1.000
FSMD050-0603RZ	0.50	1.00	6	100	0.6	8.0	0.10	0.070	0.350
FSMD075-0603RZ	0.75	1.50	6	100	0.6	8.0	0.20	0.050	0.250
FSMD100-0603RZ	1.00	1.80	6	100	0.6	8.0	0.30	0.040	0.120

### 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 %	145%	130%	115%	100%	92%	84%	77%	69%	61%	50%

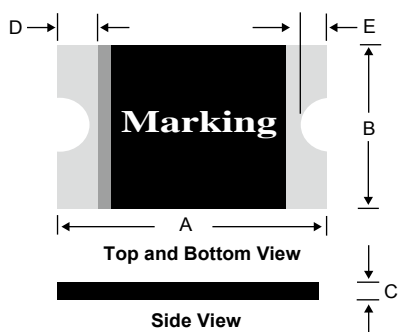
### Typical Time-To-Trip at 23°C

- A = FSMD025-0603RZ
- B = FSMD035-0603RZ
- C = FSMD050-0603RZ
- D = FSMD075-0603RZ
- E = FSMD100-0603RZ



## VII - Low Rho PPTC

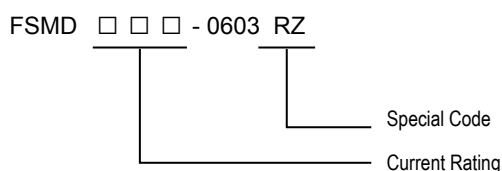
### Low Rho FSMD0603 Product Dimensions (mm)



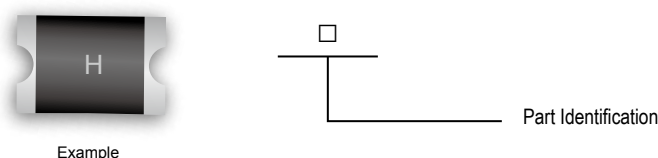
Part Number	A		B		C		D		E	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
FSMD025-0603RZ	1.40	1.80	0.45	1.00	0.30	0.70	0.10	0.50	0.08	0.40
FSMD035-0603RZ	1.40	1.80	0.45	1.00	0.30	0.70	0.10	0.50	0.08	0.40
FSMD050-0603RZ	1.40	1.80	0.45	1.00	0.30	0.70	0.10	0.50	0.08	0.40
FSMD075-0603RZ	1.40	1.80	0.45	1.00	0.30	0.70	0.10	0.50	0.08	0.40
FSMD100-0603RZ	1.40	1.80	0.45	1.00	0.30	0.70	0.10	0.50	0.08	0.40

\*For Reflow Soldering Profile information, please refer to P.69“ IX APPENDIX - SMD PRODUCT SOLDER REFLOW RECOMMENDATIONS ”

### Part Numbering System



### Part Marking System



H	=	FSMD025-0603RZ
I	=	FSMD035-0603RZ
J	=	FSMD050-0603RZ
K	=	FSMD075-0603RZ
L	=	FSMD100-0603RZ

### Package Information

Part Number	Standard Package
FSMD025-0603RZ~ FSMD100-0603RZ	: 4.0K 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.
- Avoid PPTC devices being exposed to prolonged high temperature and/or high humidity storage environment such as 85°C and/or 85RH% which could diminish PPTC's performance.