

Low Rho FSMD1206 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

0.50A~6.00A

Maximum Voltage

6V_{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	
	I _H , A	I _T , A	V _{MAX} , V _{DC}	I _{MAX} , A	P _d , W	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
FSMD050-1206RZ	0.50	1.50	6	100	0.8	8.0	0.20	0.025	0.200
FSMD075-1206RZ	0.75	1.80	6	100	0.8	8.0	0.30	0.018	0.180
FSMD110-1206RZ	1.10	2.20	6	100	0.8	8.0	0.30	0.015	0.100
FSMD150-1206RZ	1.50	3.00	6	100	0.8	8.0	0.30	0.010	0.065
FSMD175-1206RZ	1.75	3.50	6	100	0.8	8.0	0.40	0.005	0.030
FSMD200-1206RZ	2.00	4.00	6	100	0.8	8.0	0.50	0.005	0.025
FSMD260-1206RZ	2.60	5.20	6	100	0.8	8.0	4.00	0.003	0.025
FSMD300-1206RZ	3.00	6.00	6	100	0.8	8.0	4.00	0.003	0.020
FSMD350-1206RZ	3.50	7.00	6	100	0.8	8.0	5.00	0.003	0.018
FSMD380-1206RZ	3.80	8.00	6	100	0.8	8.0	5.00	0.002	0.014
FSMD400-1206RZ	4.00	8.00	6	100	0.8	8.0	5.00	0.002	0.014
FSMD450-1206RZ	4.50	9.00	6	100	0.8	22.5	2.00	0.001	0.014
FSMD500-1206RZ	5.00	10.00	6	100	0.8	25.0	5.00	0.001	0.012
FSMD600-1206RZ	6.00	12.00	6	100	1.0	30.0	2.00	0.001	0.010

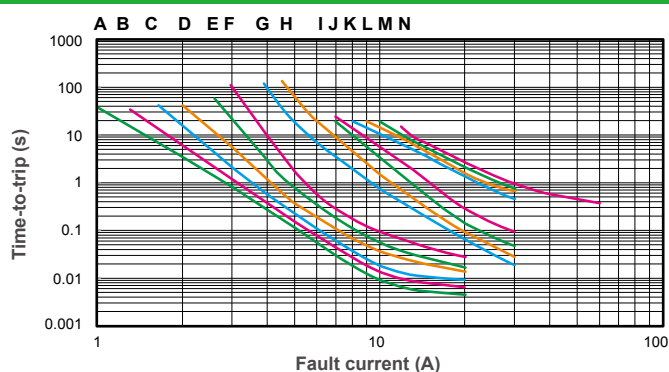
Thermal Derating for PPTC Device at Various Ambient Temperatures

TEMPERATURE	-40°C	-20	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%

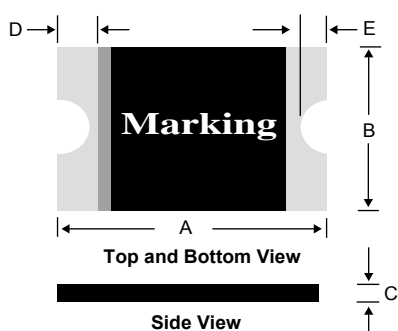
VII - Low Rho PPTC

Typical Time-To-Trip at 23°C

A = FSMD050-1206RZ	H = FSMD300-1206RZ
B = FSMD075-1206RZ	I = FSMD350-1206RZ
C = FSMD110-1206RZ	J = FSMD380-1206RZ
D = FSMD150-1206RZ	K = FSMD400-1206RZ
E = FSMD175-1206RZ	L = FSMD450-1206RZ
F = FSMD200-1206RZ	M = FSMD500-1206RZ
G = FSMD260-1206RZ	N = FSMD600-1206RZ



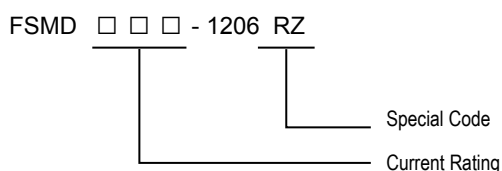
Low Rho FSMD1206 Product Dimensions (mm)



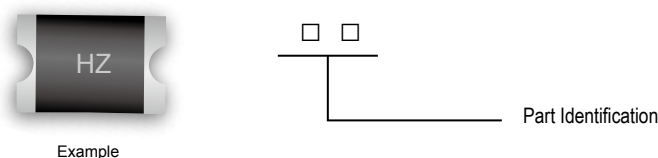
*For Reflow Soldering Profile information, please refer to P.69 "IX APPENDIX - SMD PRODUCT SOLDER REFLOW RECOMMENDATIONS"

Part Number	A		B		C		D		E	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
FSMD050-1206RZ	3.00	3.50	1.50	1.80	0.30	0.70	0.25	0.75	0.10	0.45
FSMD075-1206RZ	3.00	3.50	1.50	1.80	0.30	0.70	0.25	0.75	0.10	0.45
FSMD110-1206RZ	3.00	3.50	1.50	1.80	0.30	0.70	0.25	0.75	0.10	0.45
FSMD150-1206RZ	3.00	3.50	1.50	1.80	0.30	0.70	0.25	0.75	0.10	0.45
FSMD175-1206RZ	3.00	3.50	1.50	1.80	0.30	0.70	0.25	0.75	0.10	0.45
FSMD200-1206RZ	3.00	3.50	1.50	1.80	0.30	0.70	0.25	0.75	0.10	0.45
FSMD260-1206RZ	3.00	3.50	1.50	1.80	0.30	1.00	0.25	0.75	0.10	0.45
FSMD300-1206RZ	3.00	3.50	1.50	1.80	0.30	1.00	0.25	0.75	0.10	0.45
FSMD350-1206RZ	3.00	3.50	1.50	1.80	0.60	1.00	0.25	0.75	0.10	0.45
FSMD380-1206RZ	3.00	3.50	1.50	1.80	0.60	1.00	0.25	0.75	0.10	0.45
FSMD400-1206RZ	3.00	3.50	1.50	1.80	0.60	1.00	0.25	0.75	0.10	0.45
FSMD450-1206RZ	3.00	3.50	1.50	1.80	0.60	1.00	0.25	0.75	0.10	0.45
FSMD500-1206RZ	3.00	3.50	1.50	1.80	0.60	1.00	0.25	0.75	0.10	0.45
FSMD600-1206RZ	3.00	3.50	1.50	1.80	0.60	1.00	0.25	0.75	0.10	0.45

Part Numbering System



Part Marking System



EZ = FSMD050-1206RZ	SZ = FSMD300-1206RZ
FZ = FSMD075-1206RZ	VZ = FSMD350-1206RZ
HZ = FSMD110-1206RZ	WZ = FSMD380-1206RZ
JZ = FSMD150-1206RZ	XZ = FSMD400-1206RZ
KZ = FSMD175-1206RZ	YZ = FSMD450-1206RZ
MZ = FSMD200-1206RZ	ZZ = FSMD500-1206RZ
QZ = FSMD260-1206RZ	BZ = FSMD600-1206RZ

Package Information

Part Number	Standard Package
FSMD050-1206RZ~ FSMD200-1206RZ	: 4.0K Reel/Tape
FSMD260-1206RZ~ FSMD600-1206RZ	: 3.0K 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.

NOTE : All Specifications subject to change without notice.