

Metal Film Fusible Resistor MELF Type

FRM series

MERITEK

FEATURE

- Operating temperature: -55 ~ +155°C
- Power Ratings: Standard Type 1/8~2W, Miniature Type 1/4~3WS
- Fusible resistor for constant voltage designed for overload protection
- UL Flammability Classification Rating 94V-0



PART NUMBERING SYSTEM

FRM 0207 V 562 J T
(1) (2) (3) (4) (5) (6)



No	Item	Code	Description	Series Reference
(1)	Meritek Series	FRM	Fusible Resistor	MELF Type
(2)	Size Code	0207	0207: 3.50x1.45mm	0204, 0207, 0309, 0411, 0515
(3)	Power Rating	V	V: 1/4W	W: 1/8W, V: 1/4W, U: 1/2W, 1: 1W, 2: 2W 3: 3W, S can be added for Miniature size
(4)	Resistance	562	562: 5600Ω	First 2 are significant, Third is multiplier (10x)
(5)	Tolerance	J	J: ±5%	-5% ~ +5%
(6)	Internal Code	T	Tape and Reel	Internal control code or package reference

FUSING CHARACTERISTICS

Size	Power Rating	Fusing Multiplier					Fusing Time
		X40	X30	X25	X20	X16	
0204	1/8W	-	-	0.47Ω ~ 0.91Ω	1.00Ω ~ 4.70Ω	5.1Ω ~ 2.2kΩ	Within 60s
	1/4WS	-	-	0.47Ω ~ 0.91Ω	2.4kΩ ~ 10kΩ	5.1Ω ~ 2.2kΩ	Within 60s
0207	1/4W	0.10Ω ~ 0.18Ω	0.20Ω ~ 0.30Ω	0.47Ω ~ 0.91Ω	1.00Ω ~ 4.70Ω	5.1Ω ~ 5.6kΩ	Within 60s
	1/2WS	0.10Ω ~ 0.18Ω	0.20Ω ~ 0.30Ω	0.47Ω ~ 0.91Ω	2.4kΩ ~ 10kΩ	5.1Ω ~ 5.6kΩ	Within 60s
0309	1/2W	-	-	0.10Ω ~ 0.43Ω	0.47Ω ~ 2.00Ω	2.2Ω ~ 5.0kΩ	Within 60s
	1WS	-	-	0.10Ω ~ 0.43Ω	0.47Ω ~ 2.00Ω	2.2Ω ~ 5.0kΩ	Within 60s
0411	1W	-	0.10Ω ~ 0.18Ω	0.20Ω ~ 0.43Ω	0.47Ω ~ 2.00Ω	2.2Ω ~ 2.0kΩ	Within 60s
	2WS	-	0.10Ω ~ 0.18Ω	0.20Ω ~ 0.43Ω	0.47Ω ~ 2.00Ω	2.2Ω ~ 2.0kΩ	Within 60s
0515	2W	-	0.10Ω ~ 0.18Ω	0.20Ω ~ 0.43Ω	0.47Ω ~ 2.00Ω	2.2Ω ~ 1.0kΩ	Within 60s
	3WS	-	0.10Ω ~ 0.18Ω	0.20Ω ~ 0.43Ω	0.47Ω ~ 2.00Ω	2.2Ω ~ 1.0kΩ	Within 60s

Notes:

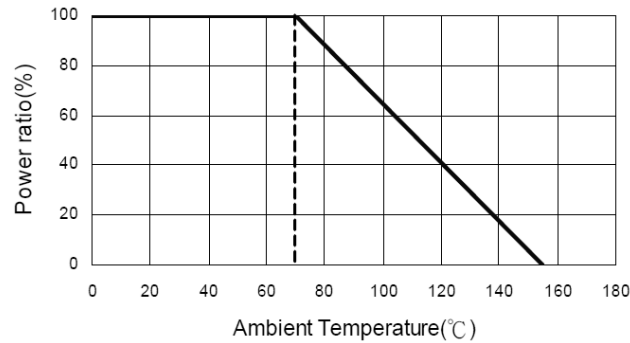
1. The fusing time and fusing conditions can be compiled upon request
2. This fusing characteristics are in constant voltage circuit
3. $Fusing\ Voltage = \sqrt{Power\ Rating \times Resistance \times Fusing\ Multiplier}$
4. Rest resistance is 100 times up more than beginning resistance without power burden, but the voltage must be adjusted automatically

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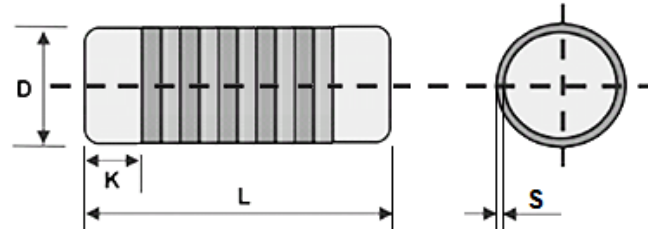
FRM series

MERITEK

POWER DERATING CURVE



DIMENSIONS



Size	Power Rating		L (mm)	D (mm)	K (mm)	S (mm)
0204	1/8W	1/4WS	3.50±0.20	1.45±0.10	0.70±0.10	0.15±0.10
0207	1/4W	1/2WS	5.70±0.20	2.20±0.10	0.80±0.20	0.20±0.10
0309	1/2W	1WS	8.50±0.30	3.00±0.30	1.70±0.20	0.30±0.10
0411	1W	2WS	10.50±0.30	4.00±0.30	2.30±0.20	0.30±0.10
0515	2W	3WS	14.50±0.30	4.50±0.30	2.30±0.20	0.30±0.10

RELIABILITY TEST CONDITION AND REQUIREMENT

Test	Test Condition	Requirement
Temperature Coefficient of Resistance (T.C.R.)	JIS-C-5202, 5.2	±200ppm/°C
Short Time Overload	RCWV*2.5 or Max. overload voltage whichever is lower for 5 seconds	±2%
Solderability	235±5°C for 2±0.5 seconds	90% minimum coverage
Resistance to Soldering Heat	260±5°C for 5±1 seconds	±2%
Insulation Resistance	JIS-C-5202, 5.6 A	≥10MΩ
Damp Heat With Load	40±2°C, 90~95% RH, RCWV for 1000 hrs with 1.5 hrs "ON" and 0.5 hrs "OFF"	±5%
Load Life	70±2°C, RCWV for 1000 hrs with 1.5 hrs "ON" and 0.5 hrs "OFF". RCWV: $\sqrt{P \cdot R}$ or max operating voltage, whichever is lower	±5%
Bending test	Holding point width 90mm, Bend 5mm for 1 time	±1%

*Specifications subject to change without notice.