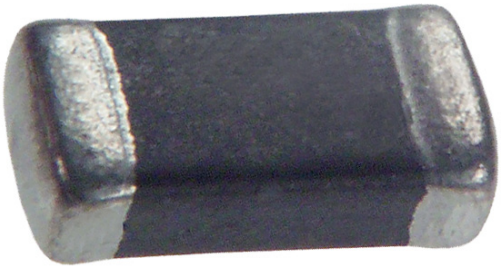
Fast Acting Fuse
SMD Thin Film



RoHS Compliant

Electrical Specifications

Operating temperature : -55°C to +125°C

Current carrying capacity : For MCF0402E and MCF0603E at -55°C 107% of rating, at -25°C 100% of rating, at +125°C 80% of rating
For MCF0603C at -55°C is 107% of rating, at +25°C 100% of rating, at +85°C 90% of rating, at +125°C 75% of rating
For MCF1206B and MCF0805B at -55°C is 107% of rating, at +25°C 100% of rating, at +85°C 93% of rating, at +125°C 90% of rating
For MCF0805B 2.50A and 3.00A at +85°C 90% of rating, at +125°C 90% of rating

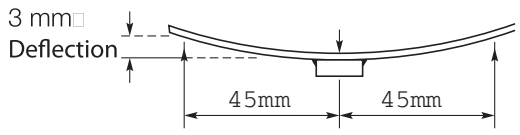
Interrupting rating : 50A

Insulation resistance : >20MΩ guaranteed (after fusing at rated voltage)
For F0612D at -55°C 107% of rating, at +25°C 100% of rating, at +85°C 80% of rating, at +125°C 75% of rating

Type	Part Number	Current Rating A	Resistance 10% × I rated, 25°C Ω (max.)	Voltage Drop @1 × I rated, 25°C mV (max.)	Fusing Current (within 5 sec), 25°C A	Pre-Arc I^2t @ 50A A2-sec	Rated Voltage V
F0402E	MCF0402E0R25FSTR	0.25	0.65	220	0.625	0.00005*	32
	MCF0402E0R50FSTR	0.5	0.25	180	1.25	0.0003	32
	MCF0402E0R75FSTR	0.75	0.2	180	1.875	0.003	32
	MCF0402E1R00FSTR	1	0.13	160	2.5	0.008	32
	MCF0402E1R25FSTR	1.25	0.09	140	3.125	0.01	32
	MCF0402E1R50FSTR	1.5	0.06	140	3.75	0.03	32
	MCF0402E2R00FSTR	2	0.04	120	5	0.06	32
	MCF0603E0R25FSTR	0.25	0.65	220	0.625	0.00005*	32
	MCF0603E0R50FSTR	0.5	0.25	180	1.25	0.0003	32
	MCF0603E0R75FSTR	0.75	0.2	180	1.875	0.003	32
	MCF0603E1R00FSTR	1	0.13	160	2.5	0.008	32
F0603E	MCF0603E1R25FSTR	1.25	0.09	140	3.125	0.01	32
	MCF0603E1R50FSTR	1.5	0.06	140	3.75	0.03	32
	MCF0603E2R00FSTR	2	0.04	120	5	0.06	32
	MCF0805B0R25FSTR	0.25	0.75	280	0.5	0.00003*	63
	MCF0805B0R50FSTR	0.5	0.35	280	1	0.0002	63
	MCF0805B0R75FSTR	0.75	0.27	280	1.5	0.001	63
	MCF0805B1R00FSTR	1	0.22	280	2	0.003	63

F0805B	MCF0805B1R25FSTR	1.25	0.17	280	2.5	0.007	63
	MCF0805B1R50FSTR	1.5	0.12	240	3	0.01	63
	MCF0805B2R00FSTR	2	0.08	220	4	0.03	63
	MCF0805B2R50FSTR	2.5	0.06	220	5	0.05	63
	MCF0805B3R00FSTR	3	0.05	220	6	0.1	63
	MCF1206B0R20FSTR	0.2	0.75	280	0.5	0.00003	63
	MCF1206B0R50FSTR	0.5	0.35	280	1	0.0002	63
F1206B	MCF1206B1R00FSTR	1	0.18	240	2	0.003	63
	MCF1206B1R50FSTR	1.5	0.12	240	3	0.01	63
	MCF1206B2R00FSTR	2	0.08	220	4	0.03	63
	MCF1206B2R50FSTR	2.5	0.06	220	5	0.05	63
	MCF1206B3R00FSTR	3	0.05	220	6	0.1	63
F0612D	MCF0612D4R00FSTR	4	0.04	260	10	0.1	32
	MCF0612D5R00FSTR	5	0.025	200	12.5	0.25	32

Environmental Characteristics

Test	Conditions	Requirement
Solderability	Components completely immersed in a solder bath at 235 ±5°C for 2 secs.	Terminations to be well tinned No visible damage
Leach Resistance	Completely immersed in a solder bath at 260 ±5°C for 60 secs.	Dissolution of termination ≤ 25% of area ΔR/R<10%
Storage	12 months minimum with components stored in “as received” packaging.	Good solderability
Shear	Components mounted to a substrate. A force of 5N applied normal to the line joining the terminations and in a line parallel to the substrate.	No visible damage
Rapid Change of Temperature	Components mounted to a substrate. 50 cycles -55°C to +125°C.	No visible damage Δ R/R<10%
Vibration	Per Mil-Std-202F Method 201A and Method 204D Condition D.	No visible damage ΔR/R<10%
Bend	Tested as shown in diagram 	No visible damage ΔR/R<10%
Load Life MCF0805B, MCF1206B	25°C, rated current, 20,000 hrs.	No visible damage ΔR/R<10%