

FHE Series



Application

Wide variety of electronic equipment

Product Features

Very Low resistance, Very High hold current, Solid state, Radial leaded product ideal for up to 32V and Operating temperatures up to 125°C.



Operation Current

0.50A~10.00A

Maximum Voltage

32V



Temperature Range

-40°C to 125°C

Agency Recognition

AGENCY	AGENCY FILE NUMBER
	UL(E211981)
	C-UL(E211981)
	TÜV (R50004084)



Electrical Characteristics (23°C)

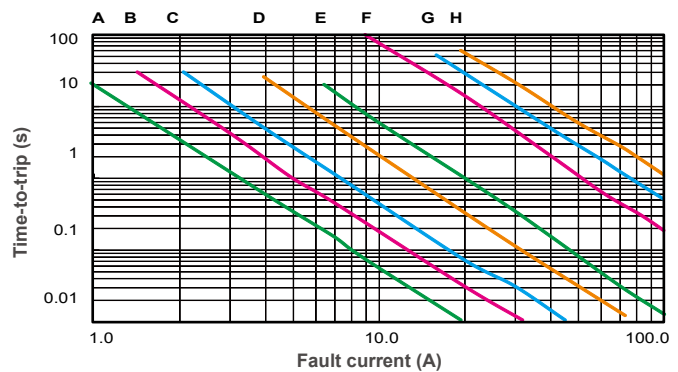
Part Number	Hold Current	Trip Current	Max. Time to trip	Max. Current	Rated Voltage	Typ. Power	Resistance	
	I _H , A	I _T , A	at 5xI _H , s	I _{MAX} , A	V _{MAX} , V _{DC}	P _d , W	R _{MIN}	R1 _{MAX}
FHE050-32F	0.5	1.0	3.0	100	32	0.9	0.3500	1.1000
FHE070-32F	0.7	1.4	3.2	100	32	1.4	0.2300	0.8000
FHE100-32F	1.0	1.9	6.2	100	32	1.4	0.1500	0.4300
FHE200-32F	2.0	4.0	5.5	100	32	2.2	0.0650	0.2500
FHE300-32F	3.0	6.0	5.0	100	32	3.2	0.0350	0.1100
FHE500-32F	5.0	10.0	9.0	100	32	5.3	0.0150	0.0400
FHE750-32F	7.5	15.0	13.0	100	32	6.5	0.0074	0.0230
FHE1000-32F	10.0	20.0	15.0	100	32	7.0	0.0060	0.0160

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	125°C
DERATING %	143%	130%	115%	100%	92%	88%	80%	72%	65%	55%	28%

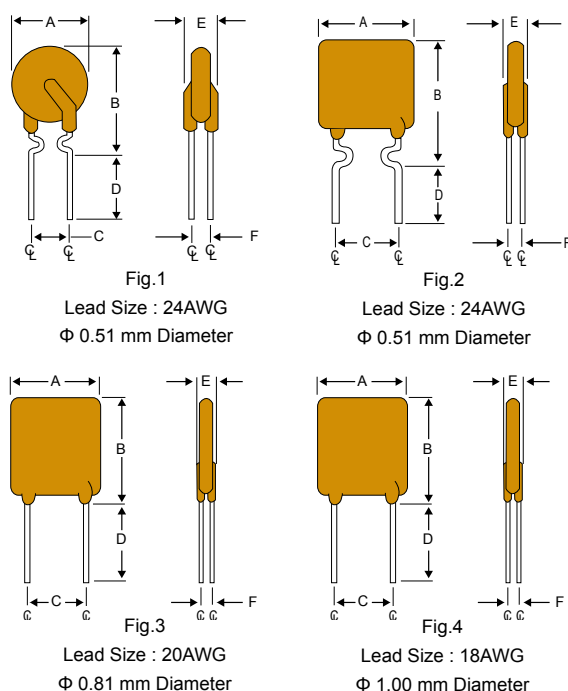
Typical Time-To-Trip at 23°C

- A = FHE050-32F
- B = FHE070-32F
- C = FHE100-32F
- D = FHE200-32F
- E = FHE300-32F
- F = FHE500-32F
- G = FHE750-32F
- H = FHE1000-32F



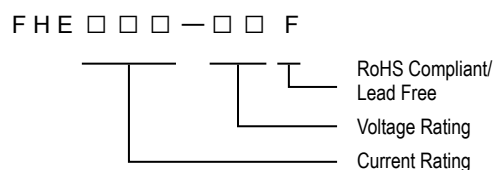
IV - Radial Leaded PPTC

FHE Product Dimensions (mm)

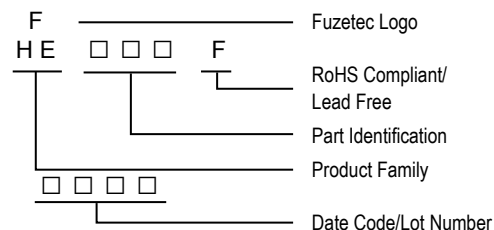


Part Number	Fig.	A	B	C	D	E
		Max.	Max.	Typ.	Min.	Max.
FHE050-32F	1	7.4	12.7	5.1	7.6	3.3
FHE070-32F	2	6.9	10.8	5.1	7.6	3.0
FHE100-32F	1	9.7	13.6	5.1	7.6	3.0
FHE200-32F	3	9.5	13.5	5.1	7.6	3.0
FHE300-32F	3	10.2	15.5	5.1	7.6	3.8
FHE500-32F	3	14.0	24.1	5.1	7.6	3.8
FHE750-32F	3	21.1	24.9	10.2	7.6	3.8
FHE1000-32F	4	23.5	27.9	10.2	7.6	4.0

Part Numbering System



Part Marking System



Package Information

Part Number	Standard Package
FHE050-32F~FHE070-32F	500Pcs/Bag, 2.5K Reel/Tape
FHE100-32F~FHE200-32F	300Pcs/Bag, 1.5K Reel/Tape
FHE300-32F	200Pcs/Bag, 1.5K Reel/Tape
FHE500-32F	200Pcs/Bag
FHE750-32F~FHE1000-32F	100Pcs/Bag

Physical specifications

Lead material	FHE050-32F~FHE100-32F Tin plated copper clad steel, 24 AWG.
	FHE200-32F~FHE750-32F Tin plated copper, 20 AWG.
	FHE1000-32F Tin plated copper, 18 AWG.
Soldering characteristics	MIL-STD-202, Method 208E.
Insulating coating	Flame retardant epoxy, meets UL-94V-0 requirement.
*NOTE : Font on Marking may look slightly different due to fine turning of each Marking printer.	

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.