

PRODUCT: 2410SFV Family (Marked)

DOCUMENT: SCD27651 REV LETTER: G

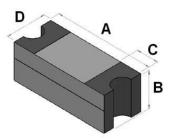
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Specification Status: Released

Termination Material: Copper, Ni, Tin Fuse Element: Copper/Copper alloy Body Material: Fiberglass/Epoxy

Operating Temperature:

-55°C to +125°C (with de-rating)



Clear Time Characteristics

% of current rating	Clear time at 25°C			
% or current rating	Min.	Max.		
100%	4 hours			
200% (0.5A-10.0A)	0.01 sec	5 sec		
200% (12.0A-20.0A)	0.01 sec	20 sec		

Dimensions

	A B		(С		D		
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
mm	5.95	6.25	1.96	2.36	0.97	1.73	2.34	2.64
in	(0.234)	(0.246)	(0.077)	(0.093)	(0.038)	(0.068)	(0.092)	(0.104)

Part Number	Marking Code	Rated Current (A)	Interrupt Rating		ge Rating (V) DC	Nominal Cold DC Resistance (DCR) (Ω)*	Nominal I ² t (A ² s) ²
2410SFV0.50FM/125	С	0.50	UL:	250	125	0.2310	0.1
2410SFV0.63FM/125	S	0.63	0.5~2A	250	125	0.1740	0.16
2410SFV0.75FM/125	D	0.75	100A @250V _{AC}	250	125	0.1480	0.23
2410SFV1.00FM/125	E	1.00	2.5~8A	250	125	0.0930	0.59
2410SFV1.25FM/125	F	1.25	50A @ 125V _{AC}	250	125	0.0700	0.96
2410SFV1.50FM/125	G	1.50	0.5~8A	250	125	0.0620	1.19
2410SFV2.00FM/125	ı	2.00	50A @ 125V _{DC} 300A @ 32V _{DC}	250	125	0.0420	2.75
2410SFV2.50FM/125	J	2.50	300A @ 32 V DC	125	125	0.0310	1.21
2410SFV3.00FM/125	K	3.00	TUV:	125	125	0.0249	1.73
2410SFV3.15FM/125	V	3.15	0.5A、0.63A、	125	125	0.0232	2.2
2410SFV3.50FM/125	L	3.50	1A、1.25A、2A	125	125	0.0220	2.5
2410SFV4.00FM/125	M	4.00	100A @250V _{AC}	125	125	0.0172	4.1
2410SFV5.00FM/125	N	5.00	50A @125V _{DC}	125	125	0.0143	5.9
2410SFV6.30FM/125	0	6.30		125	125	0.0100	12.5
2410SFV7.00FM/125	Р	7.00	CQC:	125	125	0.0094	14.2
2410SFV8.00FM/125	R	8.00	0.5A、1A、2A 100A @250V _{AC} 50A @125V _{DC}	125	125	0.0086	20.3
2410SFV10.0FM/125	Q	10.00	UL: 35A@125V _{AC} 50A @ 125V _{DC} 300A @ 32V _{DC}	125	125	0.0066	29.2
2410SFV12.0FM/065	X	12.00	UL:	65	65	0.0053	49.2
2410SFV15.0FM/065	Y	15.00	50A @ 65V _{AC} 50A @ 65V _{DC} 300A @ 32V _{DC}	65	65	0.0038	102.5
2410SFV20.0FM/065	Z	20.00	UL: 50A @ 65V _{AC} 100A @ 65V _{DC} 300A @ 32V _{DC}	65	65	0.0034	126.2

^{*} Measured at ≤10% of rated current and 25°C ambient



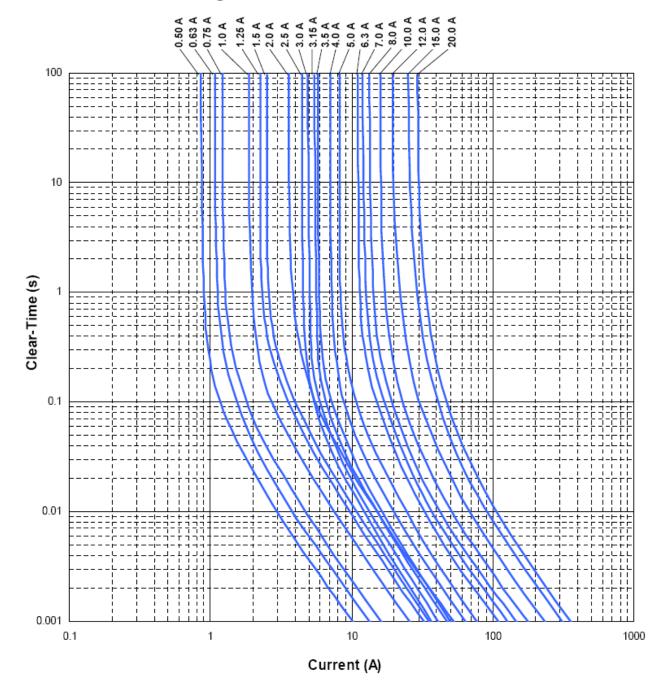
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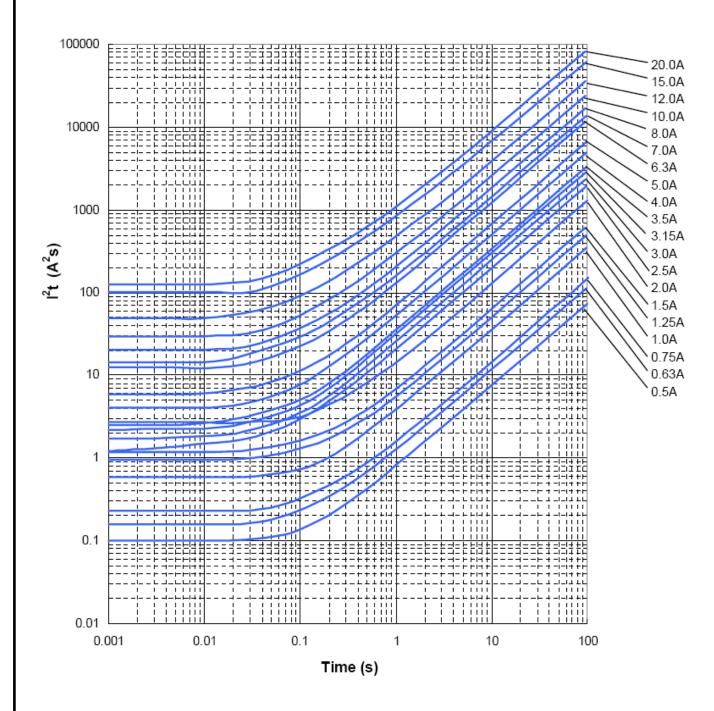
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I²t Curves for 2410 Devices

Average I2t vs. t Curves





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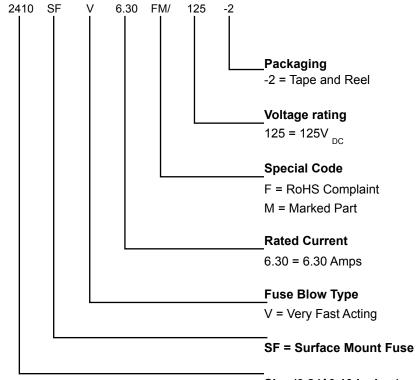
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Product Characteristics for 2410 Devices

Reliability Test	Test Condition and Requirement
Reflow & Bend	3 reflows at 245°C followed by a 2 mm bend, 20% DCR change max. (10% for ≤1A), no mechanical damage
Solderability	245°C, 5 seconds, new solder coverage 90% minimum
Soldering Heat Resistance	260°C (according to MIL-STD-202, Method 210, Test condition B)
Life	25°C, 2000 hours, 80% rated current (75% for <1A), voltage drop change ≤±20%
Thermal Shock	-65°C to +125°C, 100 cycles, 10% DCR change max., no mechanical damage
Mechanical Vibration	5 – 3000 Hz, 0.4 inch double amplitude or 30 G peak, 10% DCR change max., no mechanical damage
Mechanical Shock	1500 G, 0.5 milliseconds, half-sine shocks, 10% DCR change max., no mechanical damage
Salt Spray	5% salt solution, 48 hour exposure, 10% DCR change max., no excessive corrosion
Moisture Resistance	10 cycles, 15% DCR change max., no excessive corrosion

Part Naming for 2410 Devices



Size (0.24⁰.10 inches)

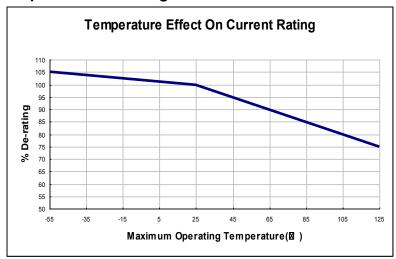


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Temperature De-rating Curve for 2410 Devices



Solder Reflow Recommendation for 2410 Devices

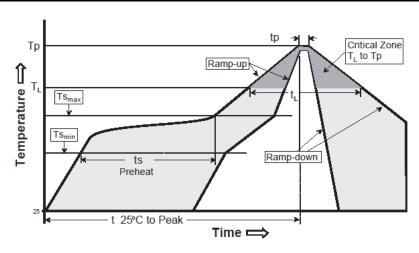
Profile Feature	
Average ramp up rate (Ts _{MAX} toTp)	3°C/second max.
Preheat	
Temperature min. (Ts _{MIX})	150°C
Temperature max. (Ts _{MAX})	200°C
Time (ts _{MIN} to ts _{MAX}) 60-180 seconds	40 – 100 Seconds
Time maintained above:	
Temperature (T _L)	200°C
• Time (t _L)	30 Seconds Min.
Peak/Classification temperature (Tp)	250°C Max.
Time within 5°C of actual peak temperature	
Time (tp)	30 – 40 Seconds
From 25°C to preheating (150°C)	40 – 100 seconds
Ramp down rate	Natural Cooling



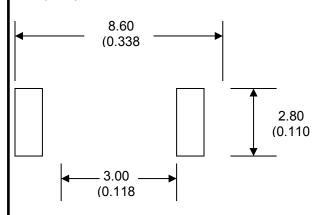
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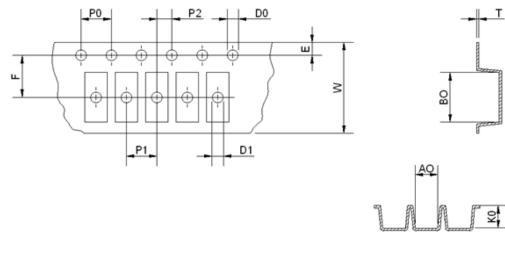
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Recommended Pad Layout for 2410 Devices mm (inch)



Package Information for 2410 Devices



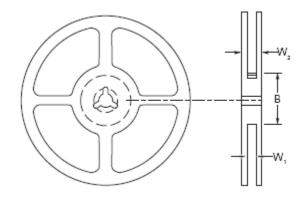


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	Е	F	W	P1	P0	P2
mm	1.75±0.10	5.50±0.10	12.00±0.10	4.00±0.10	4.00±0.10	2.00±0.05
(in)	(0.069±0.004)	(0.217±0.004)	(0.472±0.004)	(0.157±0.004)	(0.157±0.004)	(0.079±0.002)
	D0	D1	Т	A0	В0	K0
mm	1.50+0.10/-0.00	1.55±0.10	0.25±0.05	2.85±0.10	6.40±0.10	2.35±0.10
(in)	(0.059+0.004/-0.000)	(0.61±0.004)	(0.010±0.002)	(0.112±0.004)	(0.252±0.004)	(0.093±0.004)



	В	W ₁	W ₂
mm	60.2	13.40	16
(in)	(2.37)	(0.528)	(0.63)

Agency Recognition: UL E197536, CQC 12012078873, TUV 50269651

Precedence: This specification takes precedence over documents referenced herein.

Effectivity: Reference documents shall be the issue in effect on the date of invitation for bid.

Materials Information ROHS Compliant

Directive 2002/95/EC Compliant **ELV Compliant**

Directive 2000/53/EC Compliant Pb-Free



Halogen Free*



^{*} Halogen Free refers to: Br≤900ppm, Cl≤900ppm, Br+Cl≤1500ppm



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