

## Device Specification (Preliminary)



### ELECTRICAL CHARACTERISTICS

Part Number	$I_{hold}$ (A)	$I_{trip}$ (A)	$V_{max}$ (Vdc)	$I_{max}$ (A)	$P_{d max.}$ (W)	Maximum Time To Trip		Resistance	
						Current (A)	Time (Sec.)	$R_{min}$ ( $\Omega$ )	$R_{1max}$ ( $\Omega$ )
SMD1210P175TF-C	1.75	3.50	6	100	0.8	8.00	0.60	0.020	0.080

Note:  $I_{hold}$  = Hold current: maximum current device will pass without tripping in 23°C still air.

$I_{trip}$  = Trip current: minimum current at which the device will trip in 23°C still air.

$V_{max}$  = Maximum voltage device can withstand without damage at rated current ( $I_{max}$ )

$I_{max}$  = Maximum fault current device can withstand without damage at rated voltage ( $V_{max}$ )

$P_d$  = Power dissipated from device when in the tripped state at 23°C still air.

$R_{min}$  = Minimum resistance of device in initial (un-soldered) state.

$R_{1max}$  = Maximum resistance of device at 23°C measured one hour after tripping or reflow soldering of 260°C for 20 sec.

\*Value specified were determined using the PWB with 0.030"×1.5oz copper traces.

\*Customer should verify the device performance in their specified conditions.

**Caution: Operation beyond the specified rating may result in damage and possible arcing and flame.**

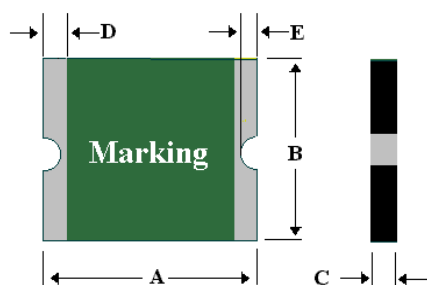
Recognitions:



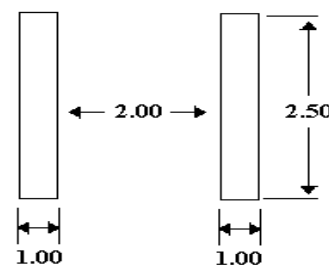
Marking:

└ Polytronics/ Polystar Logo  
P<sub>17</sub>  
└ Part Identification

FIGURE



SOLDER PAD LAYOUTS



Note: Polystar is Polytronics's manufacturing site in China. The Polystar ID marking shall appear on smallest package.

### PHYSICAL DIMENSIONS (mm)

Part Number	A		B		C		D		E	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
SMD1210P175TF-C	3.00	3.43	2.35	2.80	0.50	0.75	0.25	0.75	0.20	0.50

© Specifications are subject to change without notice.



POLYTRONICS TECHNOLOGY CORP.  
24-1, Industry E. 4<sup>th</sup> Rd. Science Park, Hsinchu, Taiwan, R.O.C.  
TEL: +886-3-5643931 FAX: +886-3-5644624

# EVERFUSE<sup>TM</sup>

Polymeric PTC Resistor

Product: SMD1210P175TF-C  
Revision: Preliminary 0.3  
Date: February 02, 2009  
Page: 2 of 2

## THERMAL DERATING CHART – Ihold/Itrip(Amps)

### RECOMMENDED DATA

Model		Ambient Operation Temperature								
		-40℃	-20℃	0℃	23℃	40℃	50℃	60℃	70℃	85℃
SMD1210P175TF-C	Ihold	2.45	2.22	2.01	1.75	1.45	1.26	1.10	0.98	0.80
	Itrip	4.90	4.40	4.00	3.50	2.90	2.50	2.20	1.95	1.60