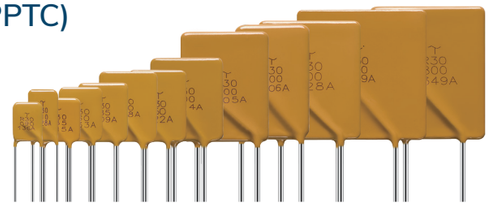
R30

Polymeric Positive Temperature Coefficient (PPTC)



Agency Approvals

Agency	Agency File Number
UL	E201504 / E319079
TUV	R50274672

Packaging

Packaging Option	Applicable Products	Quantity
Bulk	All	500 pieces per box
Ammo Pack	R30-090 to R30-250	3,000 pieces per box
	R30-300 to R30-400	1,500 pieces per box

Electrical Properties

Model	V_{max} (VDC)[1]	I_{max} (A)[2]	I_{hold} at 25°C (A)[3]	I_{trip} at 25°C (A)[4]	P_d max (W)[5]	Maximum Time to Trip		Resistance			Agency Approval	
						Current (A)	Time (Sec)	Ri_{min} (Ω)[6]	Ri_{max} (Ω)[6]	$R1_{max}$ (Ω)[7]	UL	TUV-PS
R30-030	30	40	0.30	0.60	0.44	8.00	0.3	0.370	0.720	1.080		
R30-040	30	40	0.40	0.80	0.45	8.00	0.3	0.250	0.430	0.645		
R30-050	30	40	0.50	1.00	0.46	8.00	0.3	0.150	0.400	0.600		
R30-065	30	40	0.65	1.30	0.47	8.00	0.4	0.120	0.300	0.450		
R30-075	30	40	0.75	1.50	0.48	8.00	0.4	0.100	0.250	0.375		
R30-090	30	40	0.90	1.80	0.60	4.50	5.9	0.070	0.145	0.220	•	•
R30-110	30	40	1.10	2.20	0.70	5.50	6.6	0.050	0.120	0.170	•	•
R30-135	30	40	1.35	2.70	0.80	6.75	7.3	0.040	0.085	0.130	•	•
R30-160	30	40	1.60	3.20	0.90	8.00	8.0	0.030	0.070	0.110	•	•
R30-185	30	40	1.85	3.70	1.00	9.25	8.7	0.030	0.060	0.090	•	•
R30-250	30	40	2.50	5.00	1.20	12.50	10.3	0.020	0.040	0.070	•	•
R30-300	30	40	3.00	6.00	2.00	15.00	10.8	0.020	0.050	0.080	•	•
R30-400	30	40	4.00	8.00	2.50	20.00	12.7	0.010	0.030	0.050	•	•
R30-500	30	40	5.00	10.00	3.00	25.00	14.5	0.010	0.030	0.050	•	•
R30-600	30	40	6.00	12.00	3.50	30.00	16.0	0.005	0.020	0.040	•	•
R30-700	30	40	7.00	14.00	3.80	35.00	17.5	0.005	0.020	0.030	•	•
R30-800	30	40	8.00	16.00	4.00	40.00	18.8	0.005	0.020	0.020	•	•
R30-900	30	40	9.00	18.00	4.20	40.00	20.0	0.005	0.010	0.020	•	•

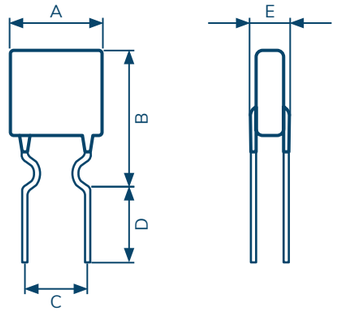
- V_{max} = Maximum voltage that device can withstand without damage at rated current (Imax)
- I_{max} = Maximum fault current device can withstand without damage at rated voltage (vmax)
- I_{hold} = hold current: maximum current device with sustain for 4 hours without tripping (at 25 °C, still air)
- I_{trip} = trip current: minimum current at which the device will trip (at 25 °C, still air)
- P_d = power dissipated from device when in the tripped state (at 25 °C, still air)
- $Ri_{min/max}$ = minimum/maximum resistance of device in initial (un-soldered) state
- $R1_{max}$ = maximum resistance of device at 25 °C, measured one hour after tripping

CAUTION: operation beyond the specified ratings may result in damage and possible arcing and flame

Product Characteristics

Operating Temperature	-40 °C to +85 °C
Maximum Device Surface Temperature	In Tripped State, 125 °C
Passive Aging	85 °C, 1000 hours, ±5% Typical Resistance Change
Humidity Aging	85 °C, 85% R.H., 1000 hours, ±5% Typical Resistance Change
Thermal Shock	+85 °C to -40 °C, 20 times, ±10% Typical Resistance Change
Vibration	MIL-STD-202, Method 201, 1 No Change

Mechanical Dimensions



Physical Dimension

Model	Material	Physical Dimensions (Unit: mm/In)					Lead Style
		A (Max.)	B (Max.)	C (Typ.)	D (Min.)	E (Max.)	
R30-030	Tin Plated Copper-Clad Steel (24 AWG), Ø 0.51 mm (0.020 in)	7.4 / 0.29	10.2 / 0.40	5.1 / 0.2	7.6 / 0.3	3.0 / 0.12	Straight
R30-040		7.4 / 0.29	11.4 / 0.45	5.1 / 0.2	7.6 / 0.3	3.0 / 0.12	Straight
R30-050		7.4 / 0.29	11.4 / 0.45	5.1 / 0.2	7.6 / 0.3	3.0 / 0.12	Straight
R30-065		7.4 / 0.29	11.4 / 0.45	5.1 / 0.2	7.6 / 0.3	3.0 / 0.12	Straight
R30-075		7.4 / 0.29	11.4 / 0.45	5.1 / 0.2	7.6 / 0.3	3.0 / 0.12	Straight
R30-090		7.4 / 0.29	12.2 / 0.48	5.1 / 0.2	7.6 / 0.3	3.0 / 0.12	Kink
R30-110		7.4 / 0.29	14.2 / 0.56	5.1 / 0.2	7.6 / 0.3	3.0 / 0.12	Kink
R30-135		8.9 / 0.35	13.5 / 0.53	5.1 / 0.2	7.6 / 0.3	3.0 / 0.12	Kink
R30-160		8.9 / 0.35	15.2 / 0.60	5.1 / 0.2	7.6 / 0.3	3.0 / 0.12	Kink
R30-185		10.2 / 0.40	15.7 / 0.62	5.1 / 0.2	7.6 / 0.3	3.0 / 0.12	Kink
R30-250		11.4 / 0.45	18.3 / 0.72	5.1 / 0.2	7.6 / 0.3	3.0 / 0.12	Kink
R30-300	Tin Plated Copper (20 AWG), Ø 0.81 mm (0.032 in)	11.4 / 0.45	17.3 / 0.68	5.1 / 0.2	7.6 / 0.3	3.0 / 0.12	Straight
R30-400		14.0 / 0.55	20.1 / 0.79	5.1 / 0.2	7.6 / 0.3	3.0 / 0.12	Straight
R30-500		14.0 / 0.55	24.9 / 0.98	10.2 / 0.4	7.6 / 0.3	3.0 / 0.12	Straight
R30-600		16.5 / 0.65	24.9 / 0.98	10.2 / 0.4	7.6 / 0.3	3.0 / 0.12	Straight
R30-700		19.1 / 0.75	26.7 / 1.05	10.2 / 0.4	7.6 / 0.3	3.0 / 0.12	Straight
R30-800		21.6 / 0.85	29.2 / 1.15	10.2 / 0.4	7.6 / 0.3	3.0 / 0.12	Straight
R30-900		24.1 / 0.95	29.7 / 1.17	10.2 / 0.4	7.6 / 0.3	3.0 / 0.12	Straight