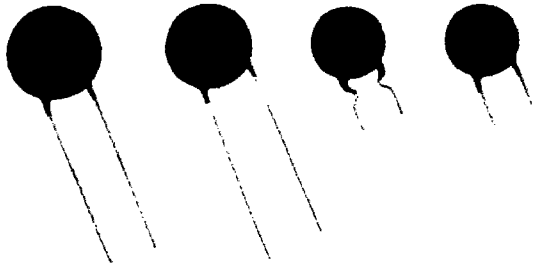


RESISTOR PRODUCTS
 PTC THERMISTORS
 CIRCUIT PROTECTION POSISTOR®



PTH Series

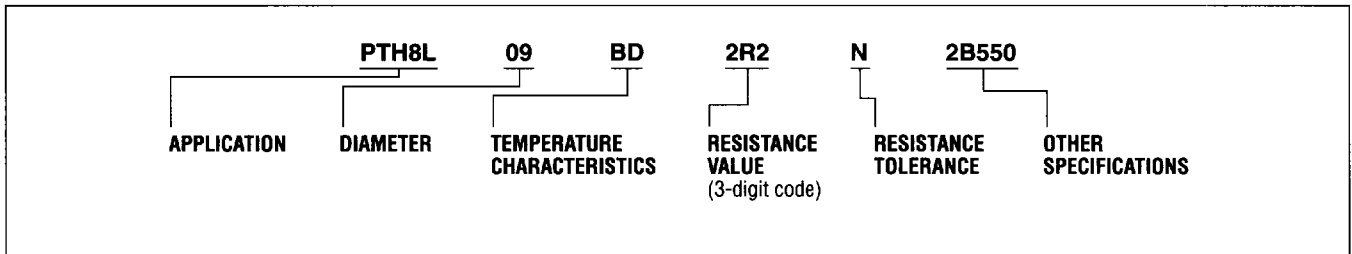
Posistor® protects circuit components at the load and power supply sides by reducing the current when abnormal current flows through the circuit.



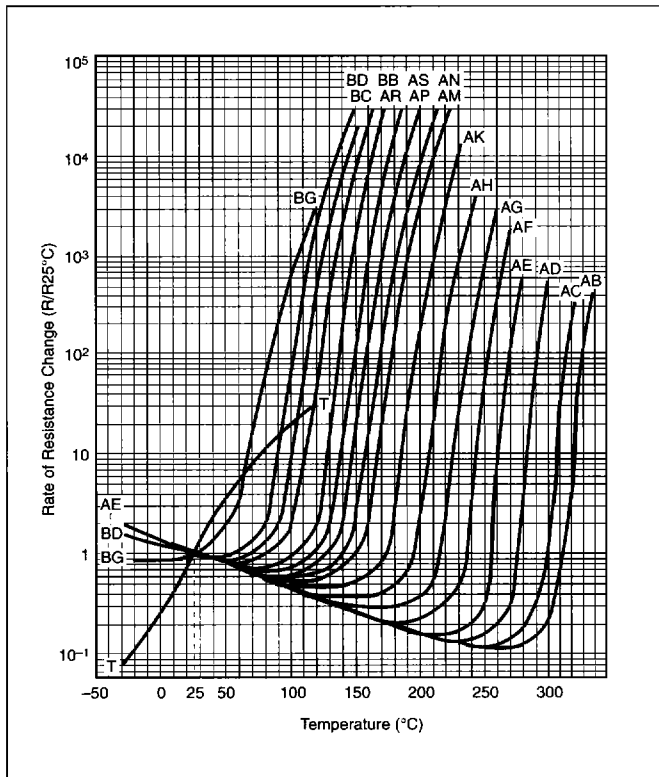
FEATURES

- Posistor® continues to protect a circuit until the abnormal current situation is corrected.
- Posistor® returns to the initial condition when the overcurrent is removed.
- No noise is emitted due to no contact.
- Excellent durability
- Posistor® is resistant to mechanical vibrations and shocks due to solid element construction.
- Non-contact design protects circuits quickly

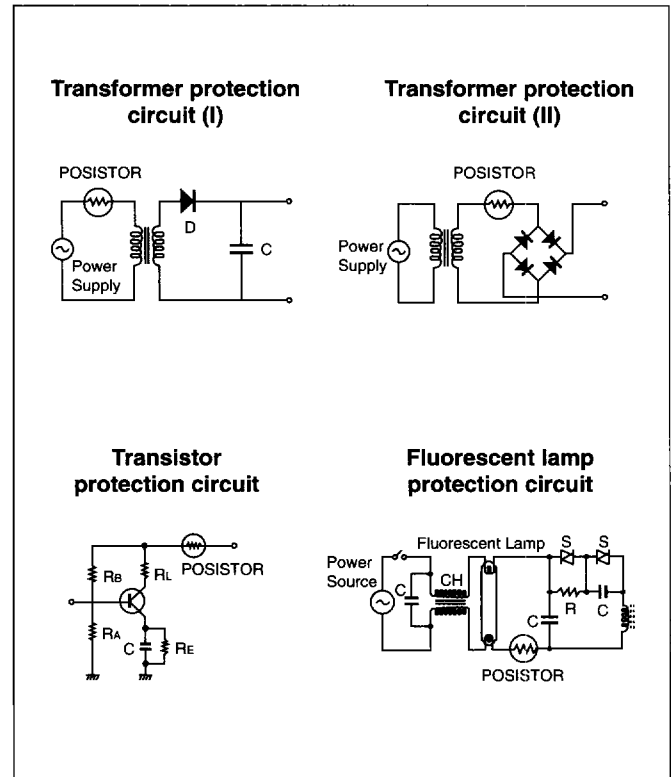
PART NUMBERING SYSTEM



RESISTANCE-TEMPERATURE CHARACTERISTICS



APPLICATION CIRCUIT



RESISTOR PRODUCTS
PTC THERMISTORS
CIRCUIT PROTECTION POSISTOR®



PTH Series

TRANSFORMER PROTECTION

Dimensions: mm	Part Number	Max. Voltage	Non-trip Current (mA) at +60°C	Trip Current (mA) at -10°C	Max. Current (A)	Resistance (Ohms) at +25°C	Dimensions: mm			
							D	T	F	φd
<p>UL Recognized File No. E137188 140V, 265V Series</p>	*PTH63H01AR4R7M140	140V	390	900	2.0	4.7 ± 20%	19.0	6.0	10.0	0.65
	*PTH631H01AR5R6M140		340	780	2.0	5.6 ± 20%	17.0	6.0	10.0	0.65
	*PTH622H01AR6R8M140		290	670	1.0	6.8 ± 20%	14.0	6.0	10.0	0.65
	*PTH623H01AR100M140		220	510	1.0	10 ± 20%	13.0	6.0	10.0	0.65
	*PTH624H01AR150M140		170	400	1.0	15 ± 20%	11.6	6.0	6.5	0.65
	*PTH61H01AR220M140		140	330	1.0	22 ± 20%	9.6	6.0	6.5	0.65
	*PTH60H01AR330M140	100	230	0.5	33 ± 20%	7.4	6.0	5.0	0.5	
	*PTH63H02AR120M265	265V	255	610	2.0	12 ± 20%	19.5	6.5	10.0	0.65
	*PTH62H02AR180M265		180	440	1.8	18 ± 20%	15.7	6.5	10.0	0.65
	*PTH623H02AR270M265		150	360	1.5	27 ± 20%	14.0	6.5	10.0	0.65
	*PTH61H02AR390M265		100	240	1.2	39 ± 20%	10.0	6.5	6.5	0.65
	*PTH60H02AR560M265		80	190	0.8	56 ± 20%	8.2	6.5	5.0	0.5
	*PTH60H02AR820M265		60	150	0.5	82 ± 20%	8.2	6.5	5.0	0.5
	*PTH59H02AR121M265		35	85	0.3	120 ± 20%	6.5	6.5	3.5	0.5
	*PTH59H02AR181M265		29	70	0.3	180 ± 20%	6.5	6.5	3.5	0.5

GENERAL CIRCUIT PROTECTION

Dimensions: mm	Part Number	Max. Voltage	Non-trip Current (mA) at +60°C	Trip Current (mA) at -10°C	Max. Current (A)	Resistance (Ohms) at +25°C	Dimensions: mm			
							D	T	F	φd
<p>16V Series</p>	PTH8L05BA1R8M1B550	16V	285	850	2.0	1.8 ± 20%	6.0	4.0	5.0	0.6
	PTH8L12AR1R2M1B530		550	1520	3.0	1.2 ± 20%	13.0	4.0	5.0	0.6
	PTH8L12AR1R2M2B550		570	1450	4.0	1.2 ± 20%	12.0	4.0	5.0	0.6
	PTH8L12BB1R0M1B530		410	1280	3.0	1.0 ± 20%	13.0	4.0	5.0	0.6
	PTH8L13AR1R0M1C030		630	1730	5.0	1.0 ± 20%	14.0	4.0	10.0	0.65
	PTH8L13AR0R9M1S030		430	1200	5.0	0.9 ± 20%	14.0	4.0	10.0	0.5
	PTH8L07BA0R9M1B550		405	1200	3.0	0.9 ± 20%	7.4	4.0	5.0	0.6
	PTH8L14AR0R5M1C030		870	2400	5.0	0.5 ± 20%	15.0	4.0	10.0	0.65
	PTH8L09BA0R5M1B550		600	1750	5.0	0.5 ± 20%	9.5	4.0	5.0	0.6
	PTH8L12BA0R3H1B550		800	2450	7.0	0.3 ± 25%	12.0	4.0	5.0	0.6
	PTH8L14BA0R2H1B750		1050	3200	8.0	0.2 ± 25%	15.0	4.0	7.5	0.6
<p>24/30/32/56/80V Series</p>	PTH8L09BD2R2N2B550	24V	180	710	2.0	2.2 ± 30%	9.5	4.0	5.0	0.6
	PTH8L09BD3R3N2B550		140	580	2.0	3.3 ± 30%	9.5	4.0	5.0	0.6
	PTH8L09BD4R7N2B550		120	500	2.0	4.7 ± 30%	9.5	4.0	5.0	0.6
	PTH8L07BD6R8N2B550		90	370	2.0	6.8 ± 30%	7.4	4.0	5.0	0.6
	PTH8L07BD100N2B550		80	320	2.0	10 ± 30%	7.4	4.0	5.0	0.6
	PTH8L18ARR45H2B750	30V	1000	2720	8.0	0.45 ± 25%	18.0	4.0	7.5	0.6
	PTH8L13AR0R8H2B750		680	1900	5.5	0.8 ± 25%	13.5	4.0	7.5	0.6
	PTH8L12AR1R2H2B550		520	1420	4.3	1.2 ± 25%	12.0	4.0	5.0	0.6
	PTH8L09AR1R8H2B550		410	1120	3.0	1.8 ± 25%	9.5	4.0	5.0	0.6
	PTH8L07AR4R6H2B550		250	700	1.0	4.6 ± 25%	7.4	4.0	5.0	0.6
	PTH8L04AR130H2B550	145	400	0.7	13 ± 25%	5.5	4.0	5.0	0.6	
	PTH8L07BD150N3B550	32V	60	240	1.5	15 ± 30%	7.4	4.0	5.0	0.6
	PTH8L07BD220N3B550		45	200	1.5	22 ± 30%	7.4	4.0	5.0	0.6
	PTH8L07BD330N3B550		40	170	1.5	33 ± 30%	7.4	4.0	5.0	0.6
	PTH8L07BD470N3B550		30	140	1.5	47 ± 30%	7.4	4.0	5.0	0.6
	PTH8L07AR680M3B550	56V	75	190	0.5	68 ± 20%	7.4	4.0	5.0	0.6
PTH8L07AR470M3B550	85		225	0.5	47 ± 20%	7.4	4.0	5.0	0.6	

*Available as standard through authorized Murata Electronics Distributors.

RESISTOR PRODUCTS

GENERAL CIRCUIT PROTECTION (continued)

Dimensions: mm	Part Number	Max. Voltage	Non-trip Current (mA) at +60°C	Trip Current (mA) at -10°C	Max. Current (A)	Resistance (Ohms) at +25°C	Dimensions: mm				
							D	T	F	φd	
	PTH8L07AR220M3P550	56V	90	240	1.0	22 ± 20%	7.4	4.0	5.0	0.6	
	PTH8L07AR8R2M3P550		130	350	1.0	8.2 ± 20%	7.4	4.0	5.0	0.6	
	PTH8L09AR150M3B550		150	400	1.2	15 ± 20%	9.5	4.0	5.0	0.6	
	PTH8L10AR3R9M3P550		210	550	2.0	3.9 ± 20%	10.5	4.0	5.0	0.6	
	PTH8L09AR4R7M3B550		270	700	2.0	4.7 ± 20%	9.5	4.0	5.0	0.6	
	PTH8L10AR3R9M3B550		300	800	2.0	3.9 ± 20%	10.5	4.0	5.0	0.6	
	PTH8L14AR3R3M3B750		380	980	2.5	3.3 ± 20%	14.5	4.0	7.5	0.6	
	PTH8L18AR2R3H4B750	80V	450	1250	8.0	2.3 ± 25%	18.0	4.5	7.5	0.6	
	PTH8L13AR3R7H4B750		310	860	5.5	3.7 ± 25%	13.5	4.5	7.5	0.6	
	PTH8L12AR5R6H4B750		270	760	4.3	5.6 ± 25%	12.0	4.5	7.5	0.6	
	PTH8L09AR9R4H4B550		190	530	3.0	9.4 ± 25%	9.5	4.5	5.0	0.6	
	PTH8L07AR250H4B550		110	300	1.0	25 ± 25%	7.4	4.5	5.0	0.6	
	PTH8L05AR550H4B550		50	135	0.7	55 ± 25%	5.5	4.5	5.0	0.6	
	PTH8L05AR181M7P590		125V	30	75	0.3	180 ± 20%	6.0	5.0	5.0	0.6
PTH8L07AR750M7B590	65	165		0.3	75 ± 20%	8.0	6.0	5.0	0.6		
PTH8L09AR470M6B590	90	230		0.5	47 ± 20%	10.0	5.5	5.0	0.6		
PTH8L09AR220M6B590	135	340		0.8	22 ± 20%	10.0	5.5	5.0	0.6		
PTH8L12AR150M6B790	175	440		1.0	15 ± 20%	12.5	5.5	7.5	0.6		
PTH8L14AR100M6B790	220	550		1.2	10 ± 20%	15.0	5.5	7.5	0.6		
PTH8L18AR6R8M6B790	300	750		1.4	6.8 ± 20%	18.5	5.5	7.5	0.6		
PTH8L18AR4R7M6B790	360	900		1.7	4.7 ± 20%	18.5	5.5	7.5	0.6		
PTH8L18AR3R3M6B790	420	1050		2.0	3.3 ± 20%	18.5	5.5	7.5	0.6		
PTH8L18AR6R0H8B790	265V	300		830	4.1	6.0 ± 25%	18.5	6.0	7.5	0.6	
PTH8L13AR100H8B790		200		560	2.2	10 ± 25%	14.0	6.0	7.5	0.6	
PTH8L12AR150H8B790		165		460	1.5	15 ± 25%	12.5	6.0	7.5	0.6	
PTH8L09AR250H8B590		118		330	1.0	25 ± 25%	10.0	6.0	5.0	0.6	
PTH8L07AR450H8B590		80		220	1.0	45 ± 25%	8.0	6.0	5.0	0.6	
PTH8L07AR650H8B590		68		190	1.0	65 ± 25%	8.0	6.0	5.0	0.6	
PTH8L07AR700H8B590		66		185	0.4	70 ± 25%	8.0	6.0	5.0	0.6	
PTH8L05AR151H8P590		28		78	0.2	150 ± 25%	6.0	6.0	5.0	0.6	

TERMS

INITIAL RESISTANCE (R@25°C)

The resistance of the posistor is the measured value with a terminal voltage of less than 1VDC to prevent self-heating.

MAXIMUM RATED VOLTAGE

The maximum voltage that can be applied to the posistor continuously in the operating temperature range.

MAXIMUM RATED CURRENT

The maximum in-rush current that may be repeatedly introduced into Posistor® when the circuits operates abnormally.

NON-TRIP CURRENT

At maximum operating temperature, this is the maximum current value that doesn't trip the Posistor® to the high resistance state. Under these conditions, Posistor® performs as a fixed resistor.

TRIP CURRENT

The minimum current value that will cause the Posistor® to trip to the protective high resistance state.

OPERATING TEMPERATURE RANGE

The ambient temperature range in which a Posistor® can be used when the maximum voltage is applied. Range is -10°C to +60°C.

TEMPERATURE CHARACTERISTICS (CURIE POINT)

The temperature at which the resistance of the Posistor® is twice the initial 25°C resistance value.