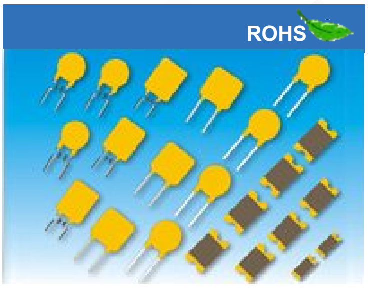
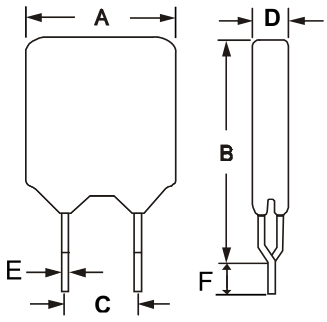
R-LINE DEVICES – D250 SERIES

Features

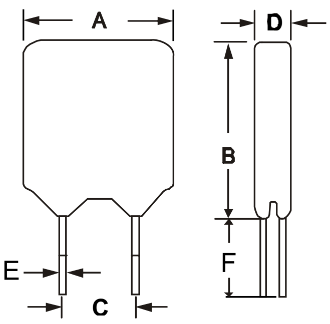
- ✧ Radial leaded devices.
- ✧ High voltage surge capabilities.
- ✧ Cured, flame retardant epoxy polymer insulating material meets UL94 V-0 requirements.
- ✧ Available in lead-free version.



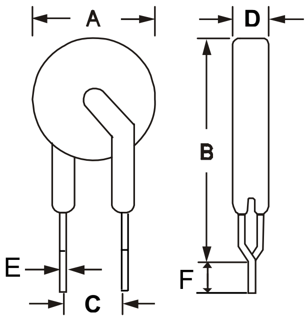
Package Dimensions



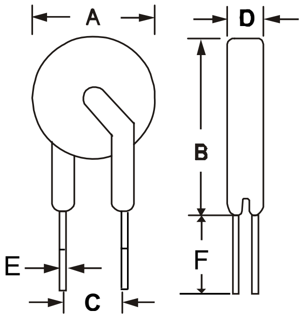
SY



SZ



DY



DZ

Part Number	A	B	C	D	E	F
	Max.	Max.	±0.6	Max.	Typ.	Min.
D250-030	6.0	8.0	5.1	4.6	0.6	7.6
D250-040	7.4	12.7	5.1	4.6	0.6	7.6
D250-060	7.4	12.7	5.1	4.6	0.6	7.6
D250-080	7.4	12.7	5.1	4.6	0.6	7.6
D250-090	7.4	12.7	5.1	4.6	0.6	7.6
D250-110	7.0	10.5	5.1	4.6	0.6	7.6
D250-120	7.0	10.5	5.1	4.6	0.6	7.6
D250-145	7.5	11.0	5.1	4.6	0.6	7.6
D250-180	10.5	14.5	5.1	4.6	0.6	7.6
D250-200	10.5	17.0	5.1	4.6	0.6	7.6
D250-400	11.2	17.0	5.1	4.6	0.8	7.6
D250-600	16.0	18.0	5.1	4.6	0.8	7.6
D250-800	20.0	22.0	5.1	4.6	0.8	7.6

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Electriacl Characteristics

Part Number	I_H	V_{MAX}	I_{MAX}	R_{MAX}	R_{MIN}	Pd typ.
	(mA)	(V)	(A)	(Ω)	(Ω)	(W)
D250-030	30	250	1	90.0	35.0	1.0
D250-040	40	250	3	65.0	27.0	1.0
D250-060	60	250	3	45.0	20.0	1.0
D250-080	80	250	3	22.0	10.0	1.0
D250-090	90	250	3	20.0	7.0	1.0
D250-110	110	250	3	12.0	6.0	1.0
D250-120	120	250	3	10.5	6.0	1.0
D250-145	145	250	3	6.5	3.5	1.0
D250-180	180	250	10	3.0	1.0	1.0
D250-200	200	250	10	6.0	3.0	1.0
D250-400	400	250	10	3.0	1.0	1.0
D250-600	600	250	10	2.0	0.6	1.0
D250-800	800	250	10	1.0	0.4	1.0

- I_H=Hold current: maximum current at which the device will not trip at 25℃ still air.
- V_{MAX}=Maximum voltage device can withstand without damage at rated current.
- I_{MAX}=Maximum fault current device can withstand without damage at rated voltage.
- R_{MAX}=Maximum device resistance at 25℃ prior to tripping.
- R_{MIN}=Minimum device resistance at 25℃ prior to tripping.
- Pd_{typ}=Typical power dissipation: typical amount of power dissipated by the device when in state air environment.

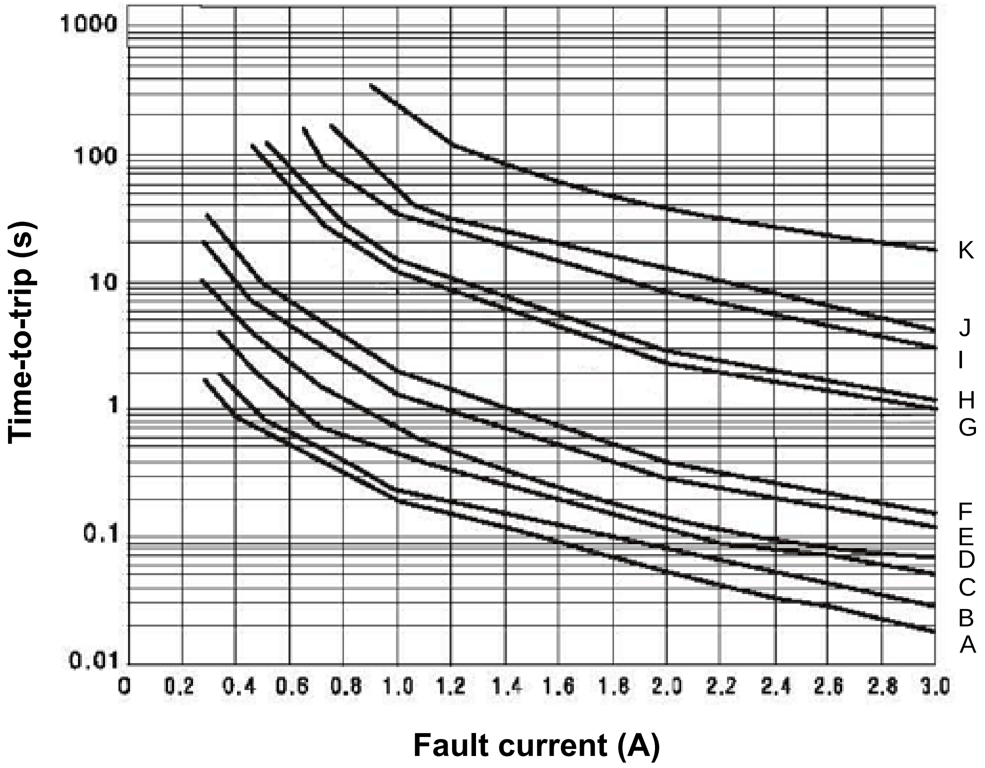
Thermal Derating Chart-I_H(A)

Part Number	Maximum Ambient Operating Temperatures (℃)								
	-20	0	25	30	40	50	60	70	85
D250-030	0.040	0.035	0.030	0.027	0.025	0.023	0.020	0.017	0.013
D250-040	0.053	0.047	0.040	0.036	0.034	0.031	0.027	0.024	0.019
D250-060	0.079	0.070	0.060	0.055	0.051	0.046	0.041	0.037	0.029
D250-080	0.106	0.094	0.080	0.073	0.068	0.062	0.054	0.049	0.038
D250-090	0.119	0.105	0.090	0.082	0.077	0.069	0.061	0.055	0.043
D250-110	0.145	0.129	0.110	0.100	0.094	0.085	0.075	0.067	0.053
D250-120	0.158	0.140	0.120	0.109	0.102	0.092	0.082	0.073	0.058
D250-145	0.191	0.170	0.145	0.132	0.123	0.112	0.099	0.088	0.070
D250-180	0.238	0.211	0.180	0.164	0.153	0.139	0.122	0.110	0.086
D250-200	0.264	0.234	0.200	0.182	0.170	0.154	0.136	0.122	0.096
D250-400	0.528	0.468	0.400	0.364	0.340	0.308	0.272	0.244	0.192
D250-600	0.792	0.702	0.600	0.546	0.510	0.462	0.408	0.366	0.288
D250-800	1.056	0.936	0.800	0.728	0.680	0.616	0.544	0.488	0.384

Test Procedures And Requirement

Test	Test Conditions	Accept/Reject Criteria
Resistance	In still air @25℃	$R_{min} \le R \le R_{max}$
Time to Trip	Specified current, V_{max}, 25℃	T ≤ max. Time to trip(T_{tirp})
Hold Current	60 min, at I_H	No trip
Trip Cycle Life	V_{max}, I_{max}, 100 cycles	No arcing or burning
Trip Endurance	V_{max}, 24hours	No arcing or burning

Average Time Current Curves



A = 250-030
B = 250-040
C = 250-060
D = 250-080
E = 250-120
F = 250-145
G = 250-180
H = 250-200
I = 250-400
J = 250-600
K = 250-800

Storage Recommendations

1. Storage Temperature : -10°C ~+40°C
2. Relative Humidity : ≦80%RH
3. Keep away from corrosive atmosphere and sunlight.
4. Period of Storage: 1 year.

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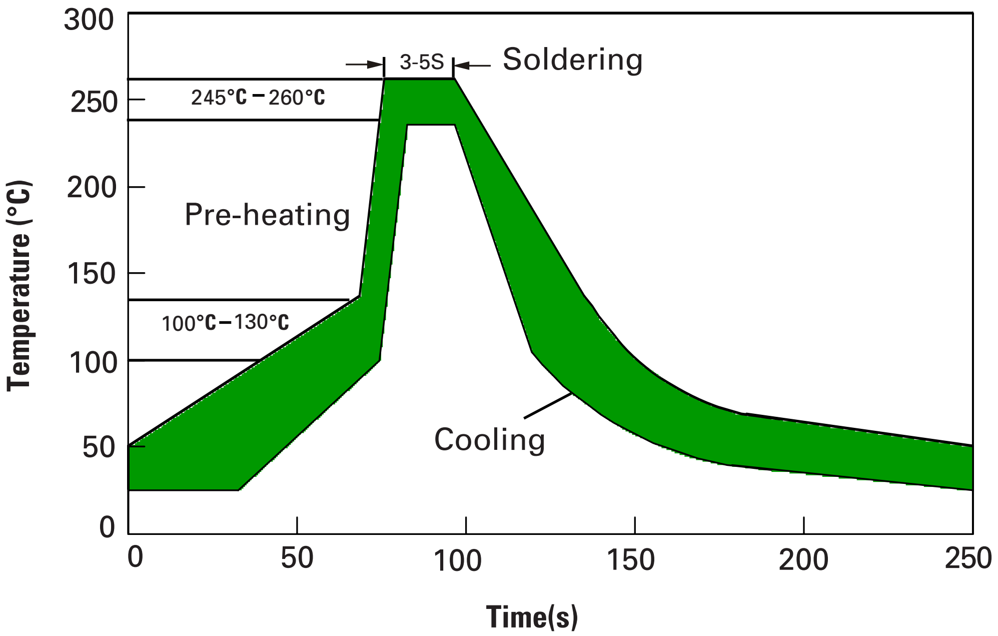
Wave Soldering Recommendation Parameters



Items	Conditions
Pre-Heating Zone	Refer to the condition recommended by the flux manufacturer. Maximum ramping rate should not exceed 4℃/sec.
Soldering Zone	Maximum solder temperature should not exceed 260℃
Cooling Zone	Forced cooling

Manual Soldering Recommendation Parameters

Items	Conditions
Soldering condition	The most highest power of the manual soldering electric iron should be 30W or lower than that, soldering temperature should not be higher than 280℃.
Soldering time	The soldering time should be within 3 seconds, or it may lead to the envelope layer cracking, resistance getting bigger.
Soldering position	The soldering position should be controlled distance sea1de feet 4mm above.
Other	The iron soldering head can't touch the body of the product except the lead wire. In the conditions of meeting soldering effect of the product, the soldering lower temperature, nearest distance from the soldering position to chip and less soldering time will make the soldering better.

Notes: 1. Before using the device must be stored in the original bags, if the storage conditions do not guarantee, the device may not be able to meet the given value.

2. The devices can't used for reflow soldering.