

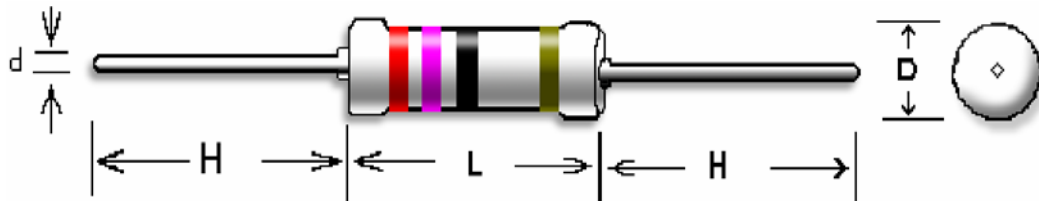
# HDR- High Voltage Discharge Resistor

## Features

- Excellent anti-surge characteristics
- Medium high working voltage
- Flameproof coating available

## Applications

- TV, CRT display, LCD backlight supply
- Copy machine, laser printer
- VTR
- Switching power supply, AC adapter



## Dimensions:

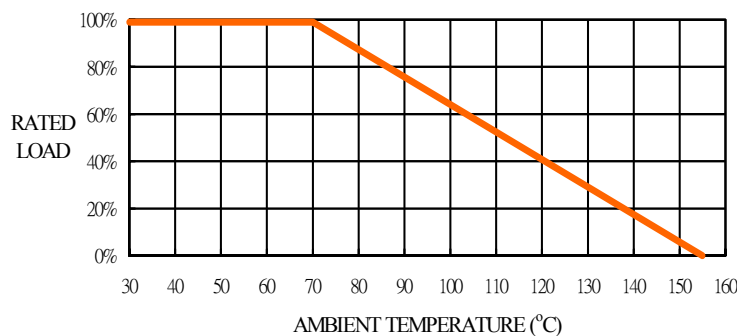
Type No.	Body Length (L, mm)	Body Diameter (D, mm)	Lead Wire Length (H, mm)	Lead Wire Diameter (d, mm)	Net Weight Per 1000Pcs
HDR20	3.2±1.0	1.9±0.2	28±3.0	0.45±0.02	145 Grams
HDR25	6.5±1.0	2.6±0.2	26±3.0	0.55±0.03	220 Grams
HDR51	8.8±1.0	3.2±0.2	26±3.0	0.70±0.03	340 Grams
HDR100	10.5±1.0	3.5±0.5	28±3.0	0.70±0.03	500 Grams
HDR200	13.5±1.0	5.0±0.5	30±3.0	0.80±0.03	1050 Grams

## General Specifications:

Type No.	Power Rating At 70°C	Max. Working Voltage	Max. Overload Voltage	Min. Resistance	Max. Resistance	Resistance Tolerance	Standard Resistance Values
HDR20	1/4W	500V	1000KV	100KΩ	5.1MΩ	±5%	E-24
HDR25	1/4W	DC1600V AC1150V	DC3200V AC2300V	100KΩ	33MΩ	±5%	E-24
HDR51	1/2W	2000V	4000V	100KΩ	33MΩ	±5%	E-24
HDR100	1W	4000V	8000V	100KΩ	56MΩ	±5%	E-24
HDR200	2W	5000V	10KV	100KΩ	56MΩ	±5%	E-24

*Special sizes, values, and specifications not listed available on special order.*

POWER DERATING CURVE



Aug. 5, 2004

# HDR- High Voltage Discharge Resistor

## Technical Summary:

Characteristics	Limits	
Dielectric Withstanding Voltage, VAC or DC	HDR20: 300 HDR25: 500 HDR51: 700 HDR100/HDR200: 1000	
Temperature Coefficient, PPM / °C	Range	Value
	100K~220K	±300
	240K~360K	±750
	390K~56M	±1500
Operating Temperature Range, °C	-55 ~ +155 (-55~+200 for flameproof coating)	
Insulation Resistance, MΩ	>10 <sup>4</sup>	
Voltage Coefficient, PPM / V	<25	
Failure Rate, 10 <sup>-8</sup> /h	<1	

## Performance Specifications:

Test Characteristics	Test Conditions	Limits				
Short Time Over Load	IEC 60115-1 4.13 5 seconds 2.5x rated voltage (not over max. overload voltage)	±0.25%				
Load Life In Humidity	IEC 60115-1 4.24 56 days at 40°C and 93% relative humidity	±2%				
Load Life 1,000 hours	IEC 60115-1 4.25.1 Rated load 1.5 hours ON, 0.5 hours OFF, at 70°C	±2.5%				
Resistance To Soldering Heat	IEC 60115-1 4.18 10 seconds at 260°C solder bath temperature	±0.25%				
Solderability	MIL-STD-202 Method 208 Solder area covered after 230±5°C/5±0.5 seconds w/ flux applied	95% Min.				
Vibration	MIL-STD-202 Method 204 Six hours in each parallel and axial direction w/ a simple harmonic motion having an amplitude of 1.52mm and 10 to 20,000 Hz.	±1%				
Thermal Endurance	IEC 60115-1 4.25.3 1000 hours at 155°C without load	±1%				
Thermal Shock	IEC 60115-1 4.19 -55°C 30minutes, +155°C 30minutes, 5 cycles	±0.25%				
Intermittent Overload	X times of rated voltage (not over max. intermittent overload voltage listed below) for 10,000 cycles				±2%	
	Type no.	HDR20	HDR25	HDR51		HDR100 / 200
	Max. intermittent overload voltage, VAC	1000	1500	1000		5000
	X figure	3	4	4	3	

## Ordering Information

Type	Tolerance	Resistance Value	Packaging	Special Request (Optional)
HDR25 HDR51	J (5%)	10K	TB (Tape/Box)	FP (Flameproof) LV (Low value)

Aug. 5, 2004