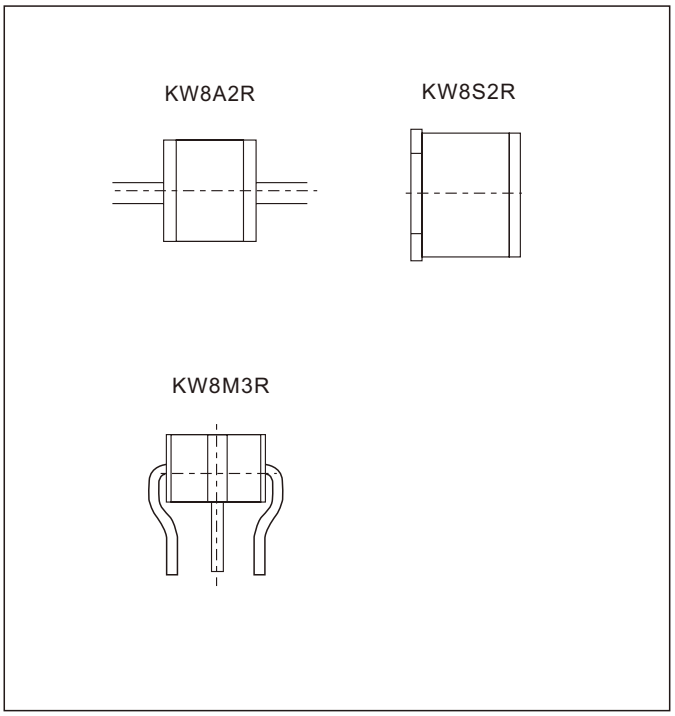
KW8A2R/KW8S2R/KW8M3R Series
Gas Discharge Tube (GDT)Products

RoHS

Description

Gas discharge Tubes (GDT) are classical components for protecting the installations of the telecommunications. It isessential that IT and telecommunications systems with their high-grade but sensitive electronic circuits beprotected by arresters. They are thus fitted at the input of the power supply system together with varistors and at the connection points to telecommunication lines. They have become equally indispensable for protecting base stations in mobile telephone systems as well as extensive cable television (CATV) networks with their repeaters and distribution systems.

Thes protective components are also indispensable in other sectors, In AC power transmission systems, they are often used with current limiting varistors, In customer premises equipment such as DSL modems, WLAN routers , TV sets and cable modems In air conditioning equipment, the integral black-box concept offers graduated protection by combining arresters with varistors, PTC, diodes and inductor.



Features

- Non-Radioactive
- ROHS compliant
- Low insertion loss
- Excellent response to fast rising transients
- Ultra low capacitance
- 10KA surge capability tested with 8/20us pulse as defined by IEC 61000-4-5
- Available with thermal failsafe option(add F'suffix to part number)

Applications

- Communication equipment
- Test equipment
- Power supplies
- Broadband equipment
- XDSL equipment
- Consumer electronics
- CATV equipment
- Data lines
- Telecom SLIC protection
- ADSL equipment, including ADSL2+
- Satellite and CATV equipment

Agency Approvals

Agency	Agency File Number
c UL us	E324754

Product Characteristics

Materials	Nickel-plated with Tinplated wires	
Glow to Arc Transition Current	~1Amp	
Glow Voltage	~70 Volts	
Weight(g)	KW8S2R	1.23
	KW8A2R	1.49
	KW8M3R	1.95

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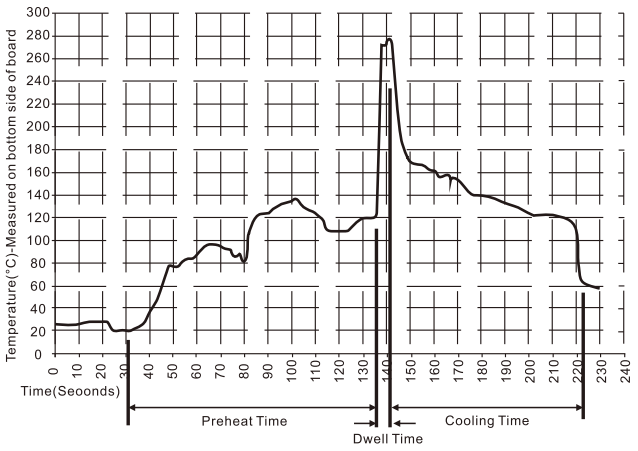
Soldering Parameters - Wave Soldering (Thru-Hole Devices)

Recommended Process Parameters:

Wave Parameter	Lead-Free Recommendation
Preheat: (Depends on Flux Activation Temperature)	(Typical Industry Recommendation)
Temperature Minimum:	100°C
Temperature Maximum:	150°C
Preheat Time:	60-180 seconds
Solder Pot Temperature:	280°C Maximum
Solder Dwell Time:	2-5 seconds



Soldering Parameters - Hand Soldering

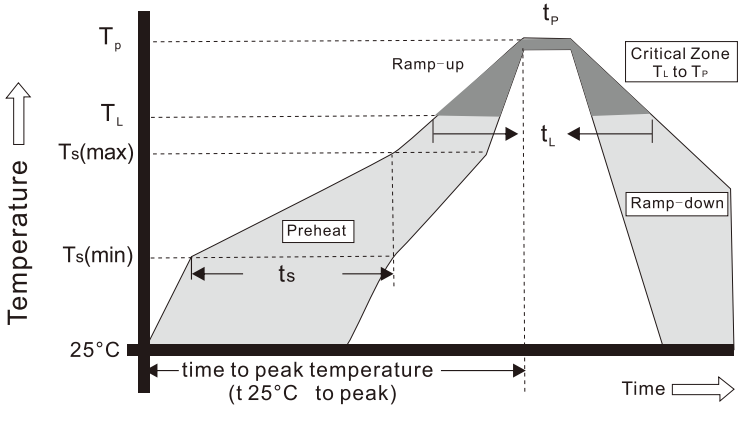
Solder Iron Temperature: 350° C +/- 5°C

Heating Time: 5 seconds max.

Soldering Parameters - Reflow Soldering (Surface Mount Devices)

Reflow Condition		Pb – Free assembly
Heat Pre	Temperature Min	150°C
	Temperature Max	200°C
	Time (Min to Max)	60 – 180 secs
Average ramp up rate (Liquidus) Temp (T_L) to peak		3°C/second max
T_S(max) to T_L - Ramp-up Rate		5°C/second max
Reflow	- Temperature (T_L) (Liquidus)	217°C
	- Temperature (t_L)	60 – 150 seconds
Peak Temperature (T_P)		260+0/-5 °C
Time within 5°C of actual peak Temperature (t_p)		8 – 20 seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature (T_P)		8 minutes Max.
Do not exceed		260°C

Figure1



Temperature Range

Operating temp range : -55°C to +125°C

Storage temp range : -40°C to +85°C

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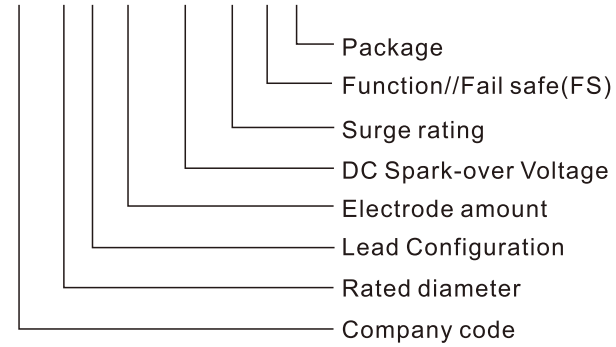
Part Numbering System

example:

KW 8 S 2R XXX M O S



Colour Code

2R 75 15

Electrode amount:2R=2 electrode device

DC Spark-over Voltage:75=75V

Year code:15=2015

Electrical Specifications

Catalog Number 料 號	DC Spark-Over Voltage 標稱直流 擊穿電壓 100V/S VS (V)	Impulse Spark Over 衝擊擊穿電壓 1KV/μs Vis(V) Max	Nom Impulse Discharge Current 耐衝擊電流 8/20μs (KA)	Nom Discharge Current(L) 耐工頻電流 IS,50Hz(A)	Insulation Resistance 絕緣電阻 Min DC MΩ V		Capacitance 電容值 C 1KHZ<6V pF Max	Marking
KW8A2R75	75±30%	700	10	10	1000	50	1.0	2R 75 XX
KW8S2R75	75±30%	700	10	10	1000	50	1.0	2R 75 XX
KW8M3R75	75±30%	700	10	10	1000	50	1.0	3R 75 XX
KW8A2R90	90±30%	700	10	10	1000	50	1.0	2R 90 XX
KW8S2R90	90±30%	700	10	10	1000	50	1.0	2R 90 XX
KW8M3R90	90±30%	700	10	10	1000	50	1.0	3R 90 XX
KW8A2R150	150±30%	700	10	10	1000	50	1.0	2R 150 XX
KW8S2R150	150±30%	700	10	10	1000	50	1.0	2R 150 XX
KW8M3R150	150±30%	700	10	10	1000	50	1.0	3R 150 XX
KW8A2R230	230±20%	800	10	10	1000	100	1.0	2R 230 XX
KW8S2R230	230±20%	800	10	10	1000	100	1.0	2R 230 XX
KW8M3R230	230±20%	800	10	10	1000	100	1.0	3R 230 XX
KW8A2R350	350±20%	800	10	10	1000	100	1.0	2R 350 XX
KW8S2R350	350±20%	800	10	10	1000	100	1.0	2R 350 XX
KW8M3R350	350±20%	800	10	10	1000	100	1.0	3R 350 XX
KW8A2R420	420±20%	900	10	10	1000	100	1.0	2R 420 XX
KW8S2R420	420±20%	900	10	10	1000	100	1.0	2R 420 XX
KW8M3R420	420±20%	900	10	10	1000	100	1.0	3R 420 XX
KW8A2R600	600±20%	1200	10	10	1000	250	1.0	2R 600 XX
KW8S2R600	600±20%	1200	10	10	1000	250	1.0	2R 600 XX
KW8M3R600	600±20%	1200	10	10	1000	250	1.0	3R 600 XX
KW8A2R1000	1000±20%	1800	10	10	1000	250	1.0	2R 1000 XX
KW8S2R1000	1000±20%	1800	10	10	1000	250	1.0	2R 1000 XX
KW8M3R1000	1000±20%	1800	10	10	1000	250	1.0	3R 1000 XX

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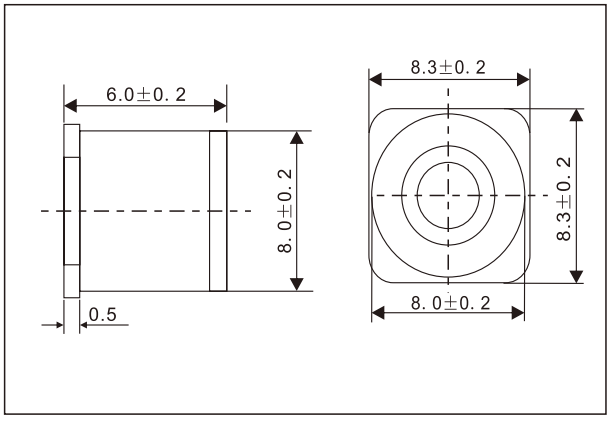
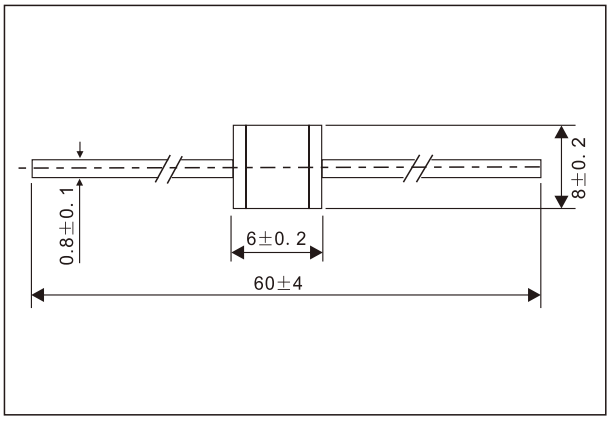
Dimensions (Unit:mm)

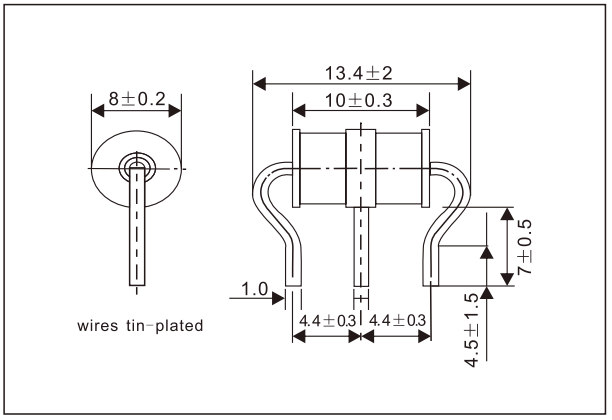
Without Wire Devices(KW8S2R)



Radial Leaded Devices(KW8A2R)



Radial Leaded Devices(KW8M3R)



Packaging

Part Number	Description	Quantity
KW8S2R	1000PCS Per Reel,4000PCS in box, 12000PCS outer box	12000
KW8A2R	100PCS PVC,1000PCS in box ,10000PCS outer box	10000
KW8M3R	100PCS PVC,500PCS in box ,5000PCS outer box	5000