Gas Discharge Tube in DIP package

Description

GDTs of RDSEMI are designed compliant with industrial specification of ITU-T K.12 2000 and national standars of GB/T 9043 2002,could meet over voltage transients protection requirements of lightning strikes, power cross and induction in both telecommunication equipments and power lines.

Features

- 3-electrode arrester
- Very small size
- Extremely fast response time
- Stable performance over life
- Extremely low capacitance (<1pF)
- High insulation resistance

Mechanical Data

- **Case:** φ8*10mm(plastic package).
  Lead free; RoHS compliant
- **Molding Compound Flammability Rating:**
  UL 94 V-0
- **Terminals:** High temperature soldering guaranteed:
  260 °C/10 sec. at terminals

Application

- Modem
- Splitter
- Base stations

Specifications（@25℃）

Part number	DC Spark-over Voltage 1) 2)	Maximum Impulse Spark-over Voltage	Service Life 3)	Insulation resistance	Capacitance
	100V/s	1kv/μs	8/20μs 10times	@ $100V_{DC}$	@ 1 MHz
	(V)	(V)	(KA)	(MΩ）	（pF)
CG3R075TL-T8	75±30%	600	10	> 1000	< 1.0
CG3R090TL-T8	90±30%	600	10	> 1000	< 1.0
CG3R150TL-T8	150±20%	650	10	> 1000	< 1.0
CG3R230TL-T8	230±20%	700	10	> 1000	< 1.0
CG3R300TL-T8	300±20%	750	10	> 1000	< 1.0
CG3R350TL-T8	350±20%	750	10	> 1000	< 1.0
CG3R400TL-T8	400±20%	900	10	> 1000	< 1.0
CG3R420TL-T8	400±20%	900	10	> 1000	< 1.0
CG3R470TL-T8	420±20%	1000	10	> 1000	< 1.0
CG3R600TL-T8	600±20%	1100	10	> 1000	< 1.0

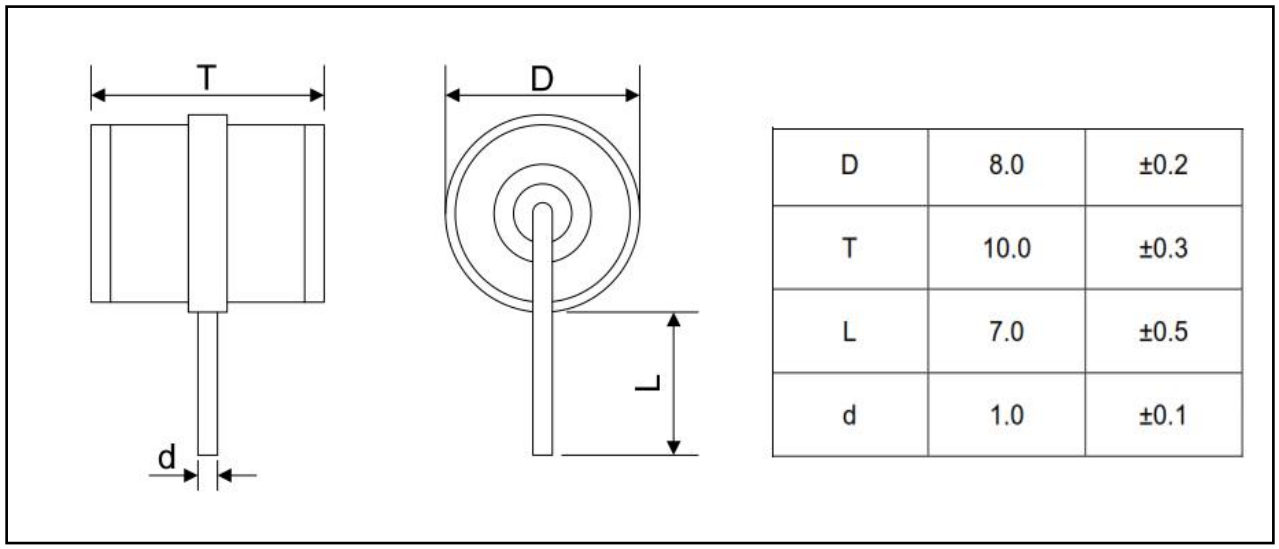
1) At delivery AQL 0.65 level II, DIN ISO 2859.

2) In ionized mode.

3) Tests according to ITU-T Rec. K. 12 and UL 497B.

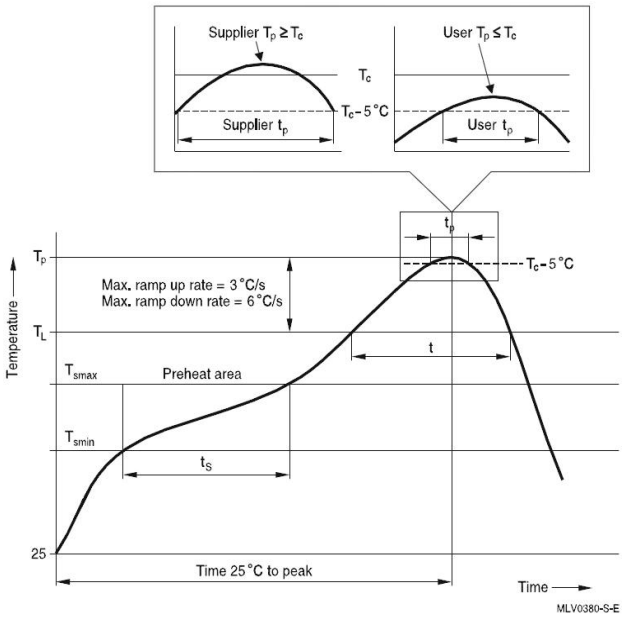
Terms and current waveforms in accordance with: ITU-T Rec. K.12; IEC 61643-21 and DIN 57845/VDE0845.

Package Dimensions



D	8.0	±0.2
T	10.0	±0.3
L	7.0	±0.5
d	1.0	±0.1

Recommended wave slodering profile



Reflow profile features		Sn- Pb eutectic assembly	Pb-free assembly
Preheat and soak - Temperature min - Temperature max - Time	 T_{smin} T_{smax} t_{smin} to t_{smax}	 100 °C 150 °C 60 ... 120 s	 150 °C 200 °C 60 ... 180 s
Average ramp-up rate	T_{smax} to T_p	max. 3 °C/ s	max. 3 °C/ s
Liquidous temperature Time at liquidous	T_L t_L	183 °C 60 ... 150 s	217 °C 60 ... 150 s
Peak package body temperature *, Classification temperature **	T_p, T_C	220 ... 235 °C **	245 ... 260 °C **
Time (t_p) ** within 5 °C of the specified classification temperature (T_C)		20 s ***	30 s ***
Average ramp-down rate	T_p to T_{smax}	max. 6 °C/ s	max. 6 °C/ s
Time 25 °C to peak temperature		max. 6 min	max. 8 min

* = Tolerance for peak profile temperature (T_p) is defined as a supplier minimum and a user maximum.
** = For details please refer to JEDEC J-STD-020D.
*** = Tolerance for time at peak profile temperature (t_p) is defined as a supplier minimum and a user maximum.

Ordering information

Order code	Package	Packaging option	Base quantity	Packaging specification
CG3RxxxTL-T8 Series			500pcs / Box	EIA STD RS-481

Revision history

Date	Revision	Changes
23-May-2020	1.0	Initial release

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