

Formosa MS

GDT2R75E-T5050 Thru GDT2R1200E-T5050

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Formosa MS

GDT2R75E-T5050 Thru GDT2R1200E-T5050

2-Electrode Arrester : 75V ~ 600V (5KA)
800V ~ 1200V (2.5KA)

Features

- Extremely small size.
- Extremely fast response time.
- Excellent SMD handling.
- Stable performance over life.
- Very low capacitance.
- High insulation resistance.
- Storage and operating temperature -40 to +125°C.
- Lead-free parts meet RoHS requirements.
- Suffix "-H" indicates Halogen free parts, ex. GDT2R75E-T5050-H.

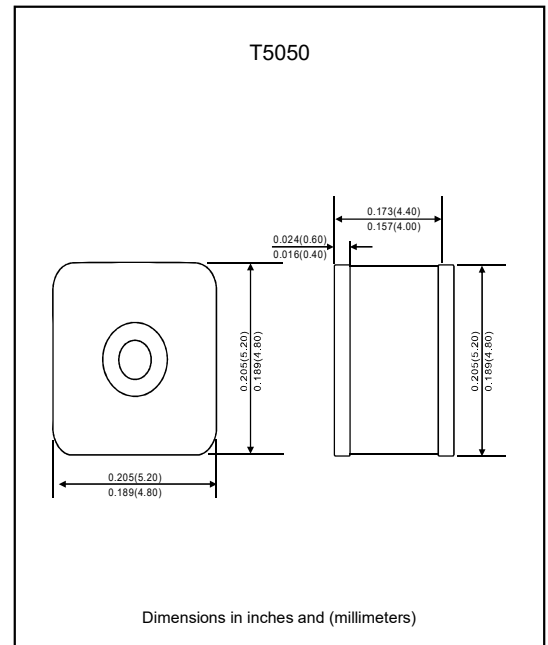
Application

- Splitter.
- PCI Cards .
- Morden.
- Line cards.

Mechanical data

- Case : T5050.
- Mounting Position : Any.

Package outline



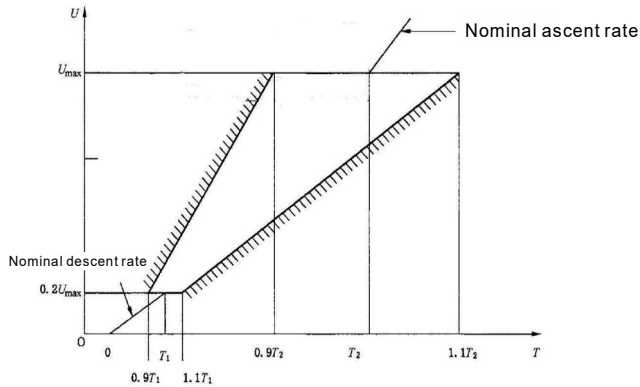
Electrical specifications

Parameter	GDT2R 75E -T5050	GDT2R 90E -T5050	GDT2R 150E -T5050	GDT2R 230E -T5050	GDT2R 300E -T5050	GDT2R 350E -T5050	GDT2R 400E -T5050	GDT2R 470E -T5050	GDT2R 600E -T5050	GDT2R 800E -T5050	GDT2R 1000E -T5050	GDT2R 1200E -T5050	Unit
Impulse spark-over voltage (100V/s)	±30	±25	±20	±20	±20	±20	±20	±20	±20	±20	±20	±20	%
Impulse breakdown voltage (1KV/μs)	600	600	600	800	850	950	1000	1100	1300	1500	1700	1800	V
Discharge current (8/20μs, 10 times)	5	5	5	5	5	5	5	5	5	2.5	2.5	2.5	KA
AC discharge current (50Hz, 1s)	5	5	5	5	5	5	5	5	5	2.5	2.5	2.5	A
Impulse life (10/1000μs, 100A)	100	100	100	100	100	100	100	100	100	100	100	100	Times
Minimum insulation resistance	50	50	100	100	100	100	100	100	100	100	100	100	DC(V)
	1	1	1	1	1	1	1	1	1	1	1	1	GΩ
Maximum capacitance (1MHz)	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	pF

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DC breakdown voltage & 8/20us Test wave



10/700us, Test Wave

$T_1 = 1.67T = 10\mu s \pm 20\%$

$T_2 = 700\mu s \pm 20\%$

10/1000us, Test Wave

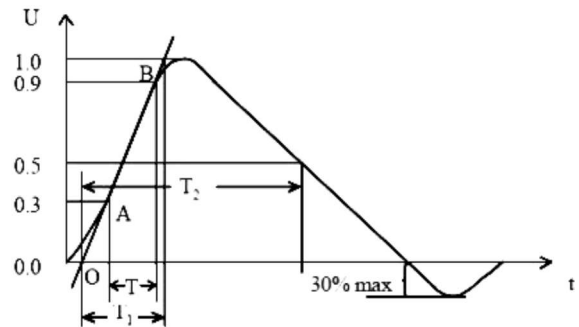
$T_1 = 1.67T = 10\mu s \pm 20\%$

$T_2 = 1000\mu s \pm 20\%$

8/20us, Test wave

$T_1 = 1.25T = 8\mu s \pm 20\%$

$T_2 = 20\mu s \pm 20\%$

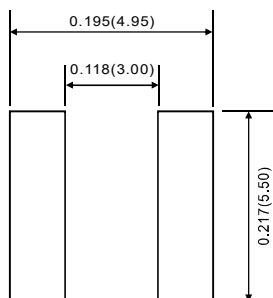


Note: 1. Sampling size in accordance to AQL (C=0).
2. DC spark-over voltage $\pm 30\%$ after load.
3. Tests according to ITU-T Rec.K. 12 and IEC61643-1.

Marking

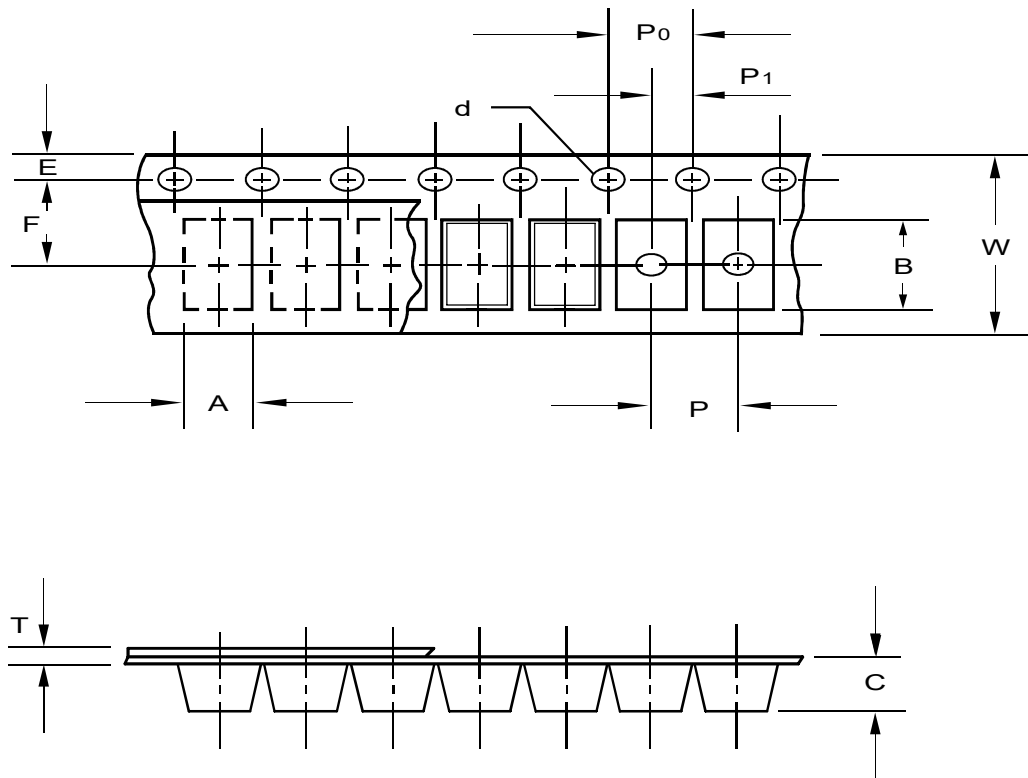
Type number	Marking code
GDT2R75E-T5050	2R75
GDT2R90E-T5050	2R90
GDT2R150E-T5050	2R150
GDT2R300E-T5050	2R230
GDT2R300E-T5050	2R300
GDT2R350E-T5050	2R350
GDT2R400E-T5050	2R400
GDT2R470E-T5050	2R470
GDT2R600E-T5050	2R600
GDT2R800E-T5050	2R800
GDT2R1000E-T5050	2R1000
GDT2R1200E-T5050	2R1200

Suggested solder pad layout



Dimensions in inches and (millimeters)

Packing information



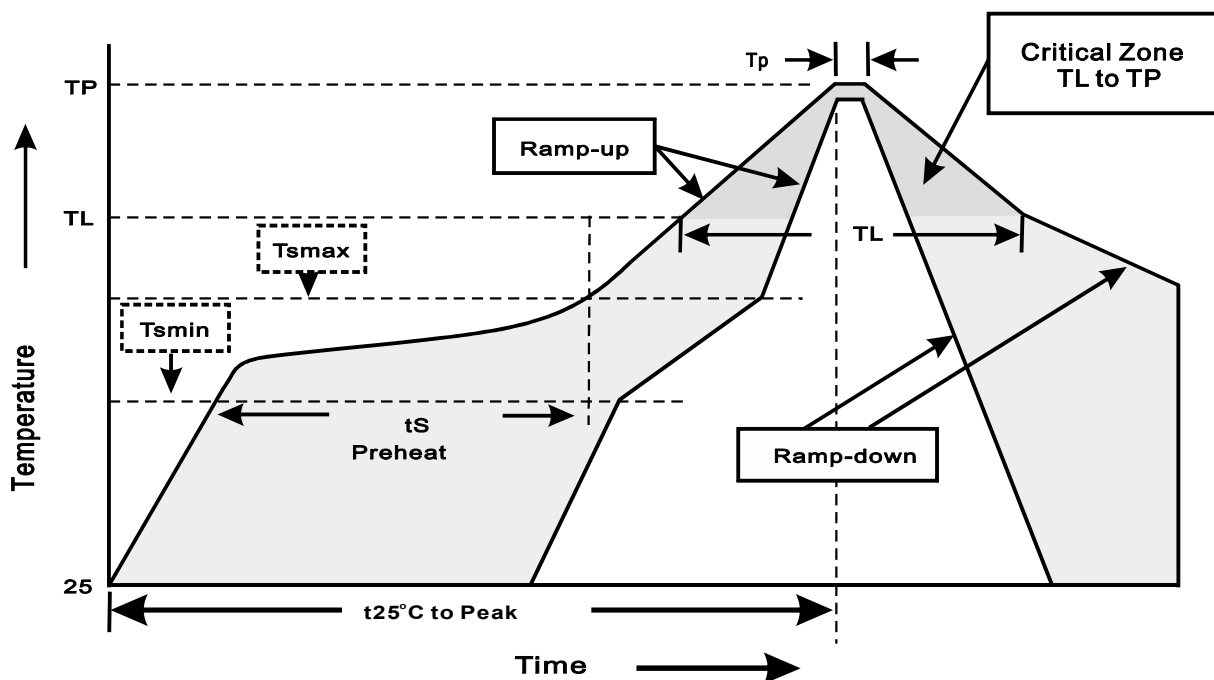
unit:mm

Item	Symbol	Tolerance	T5050
Carrier width	A	0.1	5.40
Carrier length	B	0.1	4.50
Carrier depth	C	0.1	5.30
Sprocket hole	d	0.1	1.50
13" Reel outside diameter	D	2.0	-
13" Reel inner diameter	D1	2.0	-
7" Reel outside diameter	D	2.0	-
7" Reel inner diameter	D1	2.0	-
Feed hole diameter	D2	0.5	13.30
Sprocket hole position	E	0.1	1.75
Punch hole position	F	0.1	7.50
Punch hole pitch	P	0.1	12.0
Sprocket hole pitch	P0	0.1	4.00
Embossment center	P1	0.1	2.00
Overall tape thickness	T	0.1	0.40
Tape width	W	0.3	16.0

Note: Devices are packed in accordance with EIA standard RS-481-A and specifications listed above.

Suggested thermal profiles for soldering processes

- 1.Storage environment: Temperature=5°C~40°C Humidity=55%±25%
- 2.Reflow soldering of surface-mount devices

**3.Reflow soldering**

Profile Feature	Soldering Condition
Average ramp-up rate(T _L to T _P)	<3°C/sec
Preheat -Temperature Min(T _{min}) -Temperature Max(T _{max}) -Time(min to max)(t _s)	150°C 200°C 60~120sec
T _{max} to T _L -Ramp-upRate	<3°C/sec
Time maintained above: -Temperature(T _L) -Time(t _L)	217°C 60~260sec
Peak Temperature(T _P)	255°C-0/+5°C
Time within 5°C of actual Peak Temperature(t _P)	10~30sec
Ramp-down Rate	<6°C/sec
Time 25°C to Peak Temperature	<6minutes