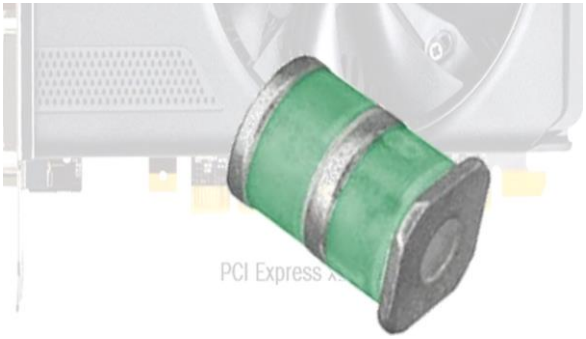
3-ELECTRODE GAS DISCHARGE TUBE (GDT)

DESCRIPTION:



The ALP3R090MFH-5S is 3-Electrode Gas Discharge Tube (GDT) is non-radioactive, Low capacitance (≤1.0pF) with high insulation resistance used for Communication industry and Signal Protection.

FEATURES:

- Features non-radioactive
- SMD type
- Low capacitance (≤1.0pF)
- High insulation resistance
- Size 5x7.6
- Storage and operating temperature: -40°C ~ +85°C
- Material: RoHS compliant

APPLICATIONS:

- Communication industry
- Video surveillance
- Outdoor lighting igniter
- Signal line protection
- Signal line protection
- Civil circuit appliances

ORDERING PART NUMBER

PART NUMBER	ORDERING PART NUMBER
ALP3R090MFH-5S	ALP3R090MFH-5S-LT

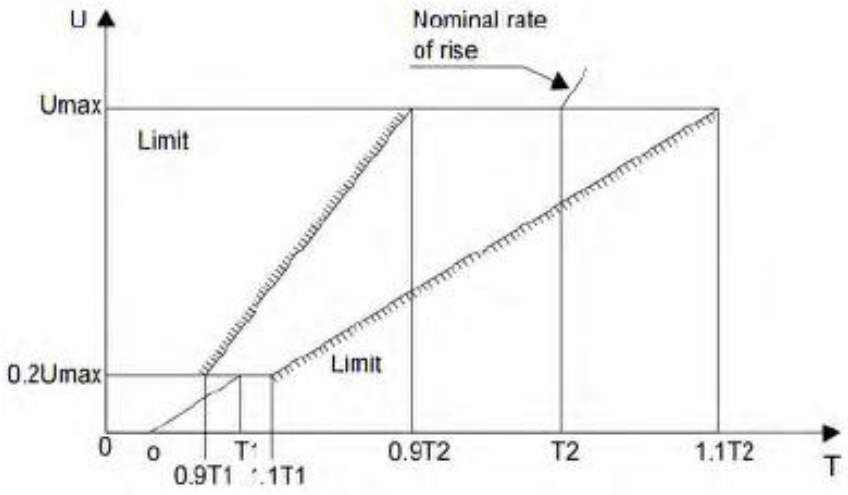
TYPICAL DEVICE CHARACTERISTICS

ELECTRICAL CHARACTERISTICS		
PARAMETER	**VALUES**	**UNIT**
DC Spark-over Voltage 100V/S	90±30%	V
Max. Impulse Breakdown Voltage 1KV/μs	600	V
Discharge Current (8/20μs) 10 times	10	KA
AC Discharge Current 50Hz, 1S	10	A
Impulse Life (10/1000μs) 100A	300	Times
Minimum Insulation Resistance	50	Test Voltage DC(V)
	1.0	GΩ
Max. Capacitance 1MHz	1.0	pF
Service life		
Arc Voltage at 1A	~10	V
Glow to arc transition current	< 1.0	A
Glow voltage	~60	V
Marking, Blue	3R90	

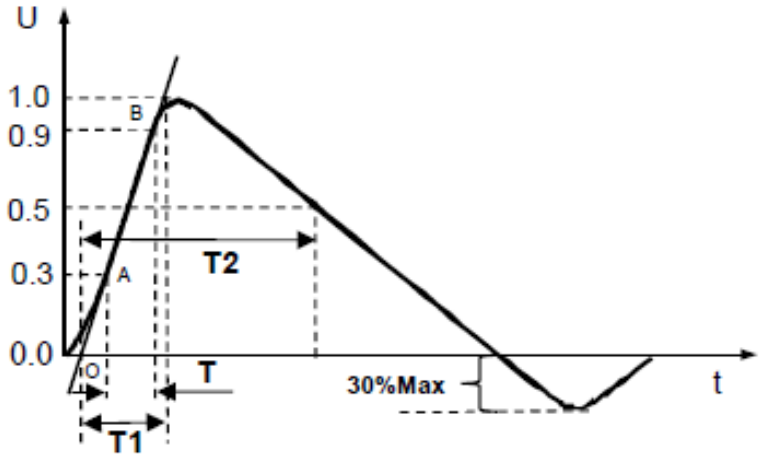
NOTES:

1) Terms in accordance with ITU-T K.12 and GB/T 9043-2008
2) At delivery AQL 0.65 level Ⅱ, DIN ISO 2859
3) Tip or ring electrode to center electrode
4) Total current through center electrode, half value through tip respectively ring electrode
5) DC spark-over voltage may exceed limit of +/-40% but will continue to protect without venting.
Terms in accordance with ITU-T Rec. K.12 and IEC 61643-311.

DC BREAKDOWN VOLTAGE

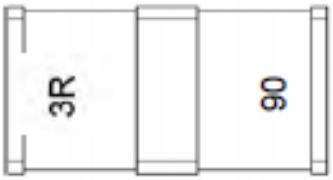


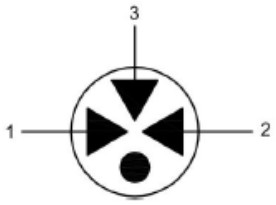
8/20µs, Test wave	10/700µs, Test wave	10/1000µs, Test wave
T1=1.25T=8µs±20%	T1=1.67T=10µs±20%	T1=1.67T=10µs±20%
T2=20µs±20%	T2=700µs±20%	T2=1000µs±20%



PINNING INFORMATION

SIMPLIFIED OUTLINE	SYMBOL

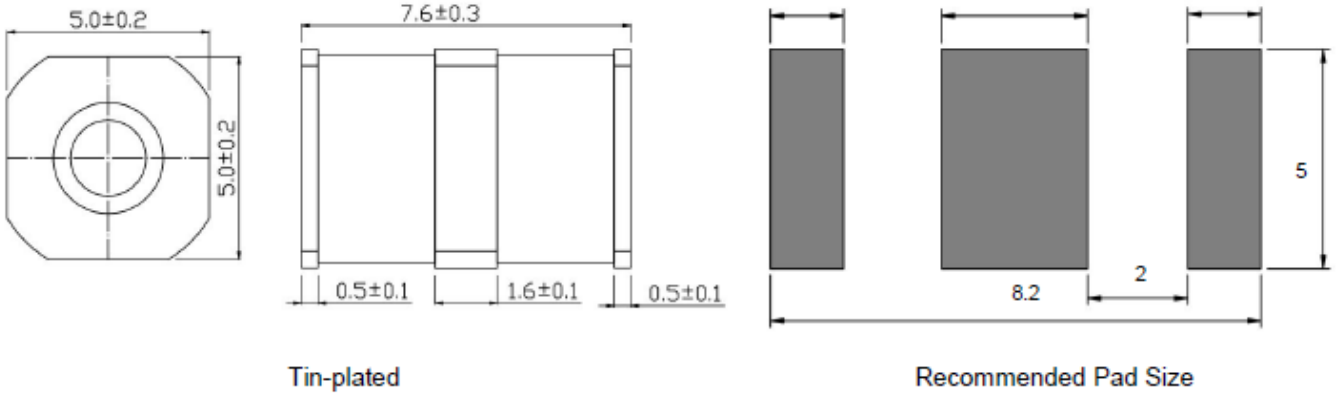




1 = Tip
2 = Ring
3 = Ground
(center electrode)

PACKAGE INFORMATION

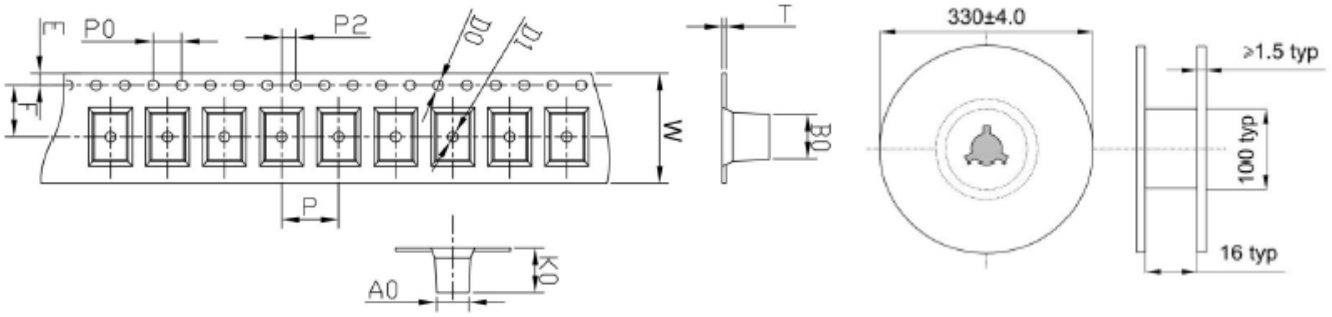
DIMENSION: Millimetre (mm)



Tin-plated

Recommended Pad Size

PACKAGE - REEL



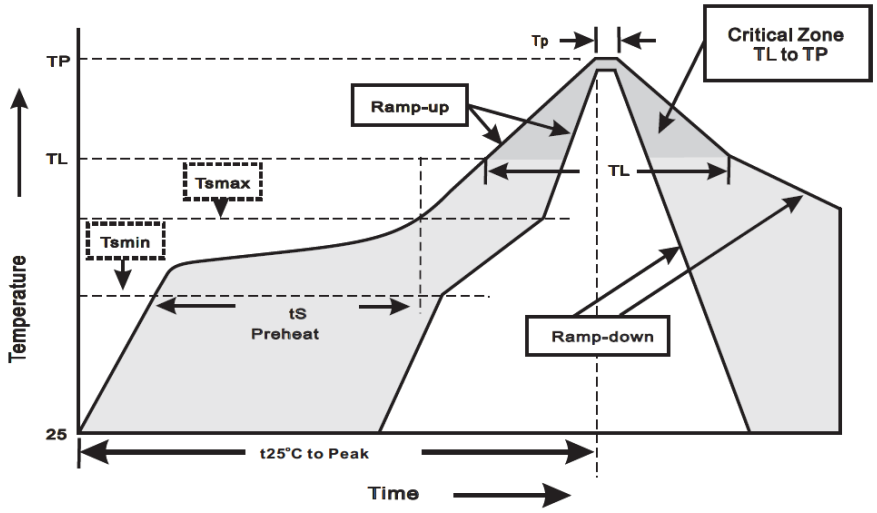
DATA	W	A0	B0	K0	E	F	P	P0	P2	D0/1	T
	16.00	5.35	7.95	5.35	1.75	7.5	8.00	4.00	2.00	1.50	0.40
	±0.30	±0.10	±0.10	±0.10	±0.10	±0.10	±0.10	±0.10	±0.10	±0.10	±0.05

Quantity: 1000pcs/reel
Colour: Dark Blue

SOLDERING PARAMETERS

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 Pb-Free Assembly
Average ramp-up rate (T_L to T_P)	<3 °C/sec
Preheat - Temperature Min (T_{smin}) - Temperature Max (T_{smax}) - Time (min to max) (t_s)	 150 °C 200 °C 60 ~ 180 sec
T_{smax} to T_L - Ramp-upRate	 <3 °C/sec
Time maintained above: - Temperature (T_L) - Time(tL)	 217 °C 60 ~ 150 sec
Peak Temperature (T_P)	255 °C-0/+5 °C
Time within 5 °C of actual Peak Temperature(tP)	20 ~ 40 sec
Ramp-down Rate	<6 °C/sec
Time 25 °C to Peak Temperature	<8 minutes

CUSTOMER NOTE:

DISCLAIMER

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Component Disposal Instructions

1. ALPINESEMI™ Semiconductor Devices are RoHS compliant and hence customers are requested to dispose as per the prevailing Environmental Legislation put forth in their specific country.

2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

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