

5050 SURFACE MOUNT GDT

Features

- ◆ RoHS Compliant
- ◆ Long Service Life
- ◆ Low Capacitance (<1pF)
- ◆ Small Size

Surge Compliance

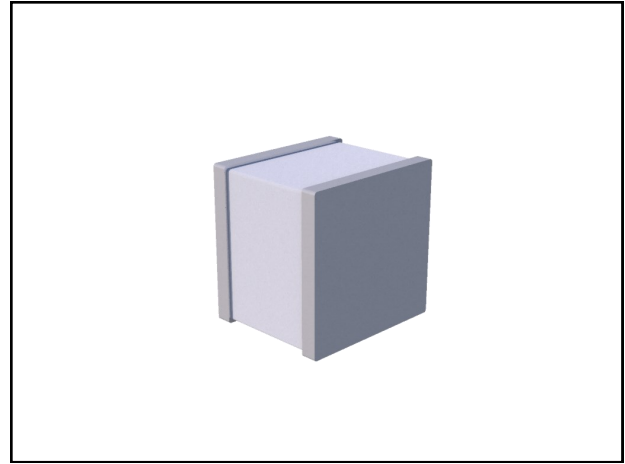
- ◆ IEC 61000-4-5
- ◆ ITU-T K.21
- ◆ ITU-T K.12

Application

- ◆ T1/E1
- ◆ SLIC Line Interface
- ◆ ADSL/ISDN Line Interface
- ◆ Ethernet
- ◆ CATV

Mechanical Characteristics

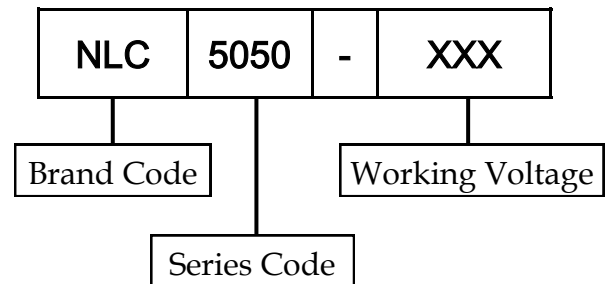
- ◆ 5 x 5 x 4.2 mm
- ◆ Weight 0.5 Gram (Approximate)
- ◆ Lead Free Plating
- ◆ Reel Size 13"
- ◆ 1,000 PCS Per Reel



5050 Series Gas Discharge Tube

| Certification | File Number |
|---|-------------|
|  | E363592 |

Ordering Information



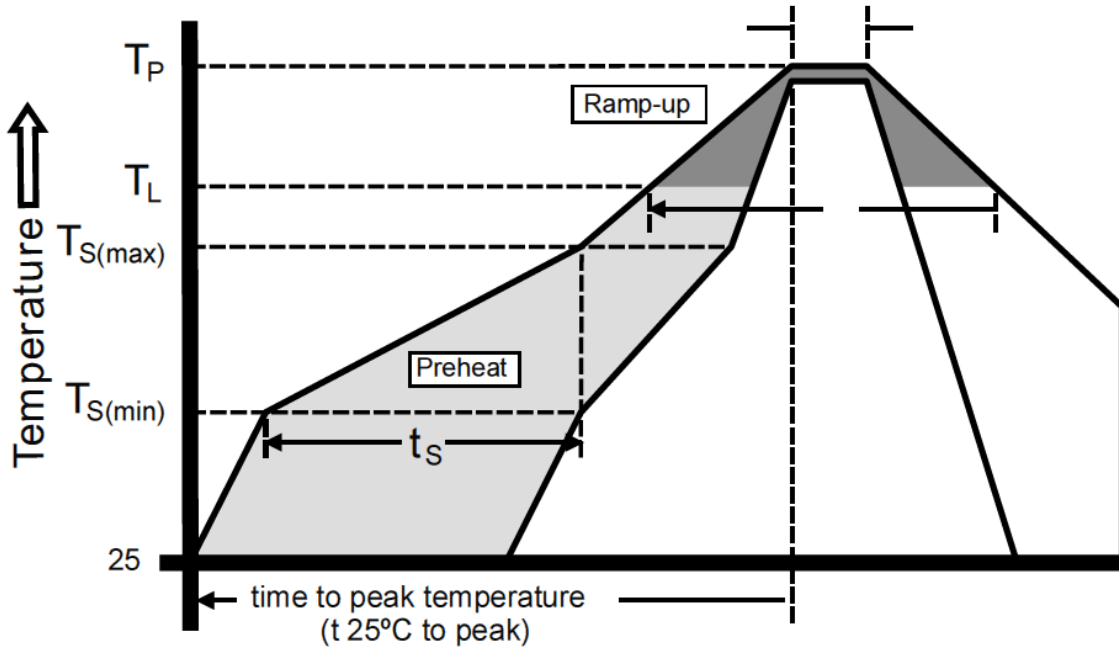
DEVICE CHARACTERISTICS

| Maximum Rating | | | |
|-----------------------------|------------------|--------|-------|
| Parameter | Symbol | Value | Units |
| Surge Current – 60Hz | I _{AC} | 5 | A |
| Lead Soldering Temperature | T _L | 260 | °C |
| Operating Temperature Range | T _J | -40~85 | °C |
| Storage Temperature Range | T _{STG} | -40~85 | °C |

| Electrical Characteristics (@25 °C) | | | | | | | |
|-------------------------------------|---------------|-------------------|---------------------------|--------------|-----------------------|-----------------------|----------------|
| Part Number | DC Break-down | Impulse Breakdown | Impulse Discharge Current | Impulse Life | Insulation Resistance | Insulation Resistance | C ₀ |
| | 100V/s | 1KV/us | 8/20us | 5KA @ 8/20us | 50 VDC | 100 VDC | @ 1MHz |
| | (Volt) | (Volt) | (A) | (Times) | (GΩ) | (GΩ) | (pF) |
| NLC5050-075 | 75 ± 20% | 650 | 5000 | 10 | 1 | - | 1 |
| NLC5050-090 | 90 ± 20% | 650 | 5000 | 10 | 1 | - | 1 |
| NLC5050-150 | 150 ± 20% | 650 | 5000 | 10 | 1 | - | 1 |
| NLC5050-200 | 200 ± 20% | 650 | 5000 | 10 | - | 1 | 1 |
| NLC5050-230 | 230 ± 20% | 700 | 5000 | 10 | - | 1 | 1 |
| NLC5050-300 | 300 ± 20% | 700 | 5000 | 10 | - | 1 | 1 |
| NLC5050-350 | 350 ± 20% | 900 | 5000 | 10 | - | 1 | 1 |
| NLC5050-400 | 400 ± 20% | 950 | 5000 | 10 | - | 1 | 1 |
| NLC5050-470 | 470 ± 20% | 1000 | 5000 | 10 | - | 1 | 1 |
| NLC5050-600 | 600 ± 20% | 1200 | 5000 | 10 | - | 1 | 1 |

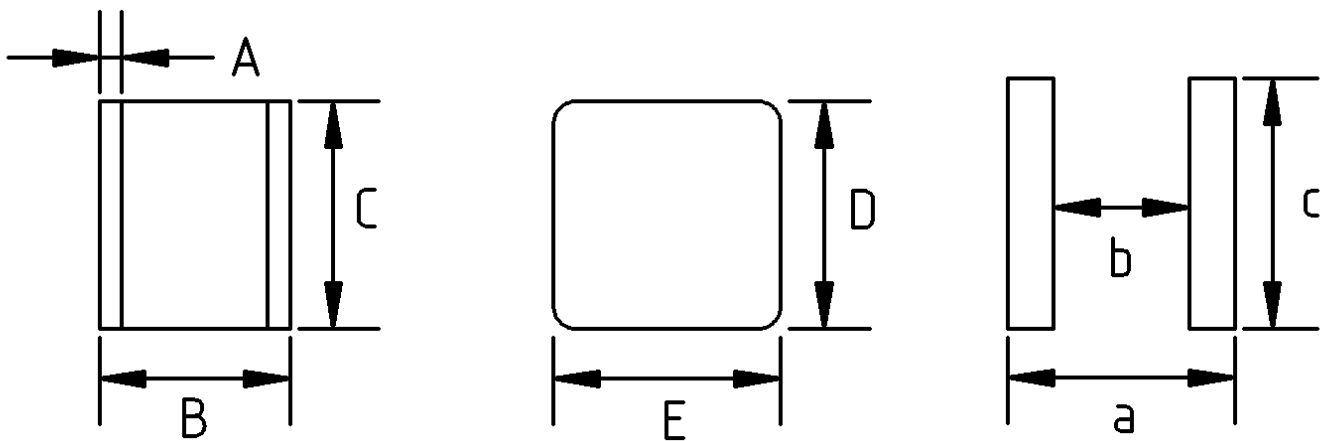
REFLOW PROFILE

| Reflow Condition | | |
|------------------------------------|----------------------------|--------------|
| Pre-Heat | Temperature Min T_{SMin} | 150°C |
| | Temperature Max T_{SMax} | 200°C |
| | Time Min to Max t_s | 60 ~ 180 sec |
| Average Ramp up Rate to Peak T_L | | 3°C/sec |
| T_{SMax} to T_L Ramp up Rate | | 5°C/sec |
| Reflow | Temperature T_L | 217°C |
| | Time t_L | 60 ~ 150 sec |
| Peak Temperature T_P | | 260°C |
| Time within 5°C of T_P | | 10 ~ 30 sec |
| Ramp Down Rate | | 6°C/sec |
| Time 25°C to T_P | | 8 min |
| Do Not Exceed | | 260°C |



DIMENSION

| Outline Dimension | | | | |
|-------------------|-------------|-----|--------|-------|
| Symbol | Millimeters | | Inches | |
| | Min | Max | Min | Max |
| A | 0.4 | 0.6 | 0.016 | 0.024 |
| B | 3.9 | 4.5 | 0.154 | 0.177 |
| C | 4.8 | 5.2 | 0.189 | 0.205 |
| D | 4.8 | 5.2 | 0.189 | 0.205 |
| E | 4.8 | 5.2 | 0.189 | 0.205 |
| a | 5.0 | | 0.197 | |
| b | 3.0 | | 0.118 | |
| c | 5.5 | | 0.217 | |



| Revision History | Modification Description |
|------------------|---------------------------|
| Rev.1.10 | Re-organize Series Models |
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