



5-Line ESD Protection Diode Array

General description

Designed to protect voltage sensitive electronic components from ESD and other transients. Excellent clamping capability, low leakage, low capacitance, and fast response time provide best in class protection on designs that are exposed to ESD. The combination of small size, low capacitance, and high level of ESD protection makes them a flexible solution for applications such as HDMI, Display Port TM, and MDDI interfaces. It is designed to replace multilayer varistors (MLV) in consumer equipments applications such as mobile phone, notebook, PAD, STB, LCD TV etc..

Features and benefits

- Uni-directional ESD protection of 5 lines
- IEC 61000-4-2 Level 4 ESD protection
- Low reverse stand-off voltage: 5V
- Low reverse clamping voltage
- Low leakage current
- Fast response time
- Small package saves board space
- RoHS compliant

Application information

- Computers and peripheral
- Audio and video equipment
- Cellular handsets and accessories
- Portable electronics
- Other electronics equipments communication systems

Ordering information

| Device | Package | Packaging | Reel Size |
|--------|---------|------------------|-----------|
| SMF05C | SOT363 | 3000/Tape & Reel | 7 inch |

Schematic & Pin configuration



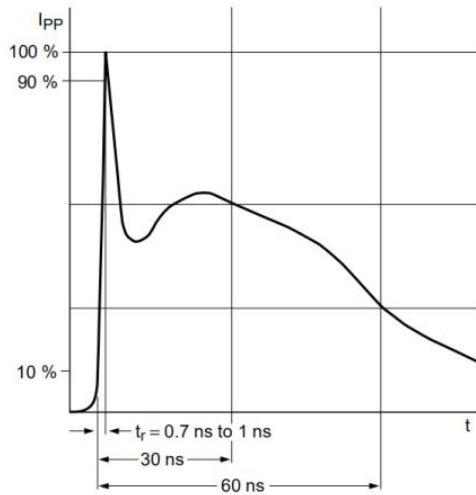
Maximum Ratings (T_A = 25 °C, unless otherwise specified)

| Parameter | Symbol | Value | Unit |
|--|------------------|-------------|------|
| Peak Pulse Power (T _p = 8/20μs) | P _{PPM} | 60 | W |
| Rated Peak Pulse Current (T _p = 8/20μs) | I _{PPM} | 5 | A |
| ESD voltage IEC 61000-4-2 (air discharge) | V _{ESD} | 20 | kV |
| ESD voltage IEC 61000-4-2 (contact discharge) | V _{ESD} | 15 | kV |
| Maximum lead temperature for soldering during 10s | T _L | 260 | °C |
| Storage Temperature Range | T _{stg} | -55 to +150 | °C |
| Operating Temperature Range | T _{OP} | -40 to +125 | °C |

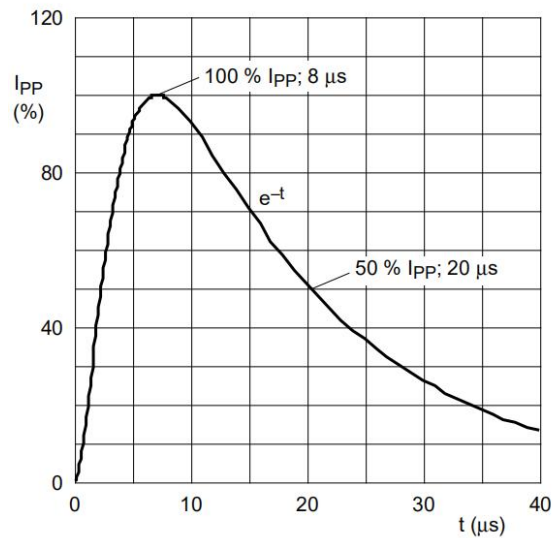
Electrical Characteristics (T_A = 25 °C, unless otherwise specified)

| Parameter | Symbol | Min | Typ | Max | Unit | Condition |
|-----------------------------------|------------------|-----|-----|------|------|---|
| Reverse Working Voltage | V _{RWM} | -- | -- | 5.0 | V | |
| Breakdown Voltage | V _{BR} | 6.0 | -- | 7.5 | V | I _T =1mA |
| Leakage Current I _{Leak} | I _R | -- | -- | 100 | nA | V _{RWM} =5V |
| Clamping Voltage | V _C | -- | -- | 9.0 | V | I _{PP} =1A, T _p =8/20μs |
| Clamping Voltage | V _C | -- | -- | 12.0 | V | I _{PP} =5A, T _p =8/20μs |
| Junction Capacitance | C _j | -- | 30 | 35 | pF | V _R =0V, f=1MHz |

Typical Characteristics

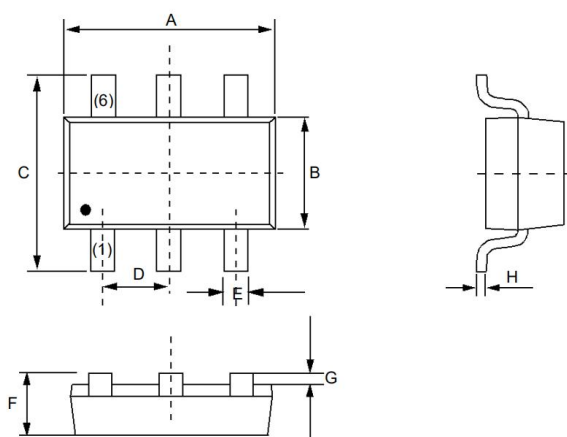


IEC61000-4-2 Waveform



IEC 61000-4-5 Waveform(8/20 μs pulse)

Package Outline Dimensions (SOT363)



| Symbol | Dimensions In Millimet | |
|--------|------------------------|------|
| | Min | Max |
| A | 2.0 | 2.2 |
| B | 1.10 | 1.40 |
| C | 2.10 | 2.50 |
| D | 0.65BSC | |
| E | 0.15 | 0.35 |
| F | 0.90 | 1.1 |
| G | 0.00 | 0.12 |
| H | 0.05 | 0.20 |

单击下面可查看定价，库存，交付和生命周期等信息

[>>DIOS\(迪恩思\)](#)