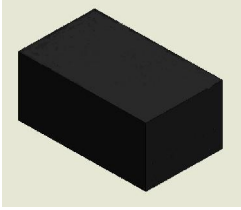
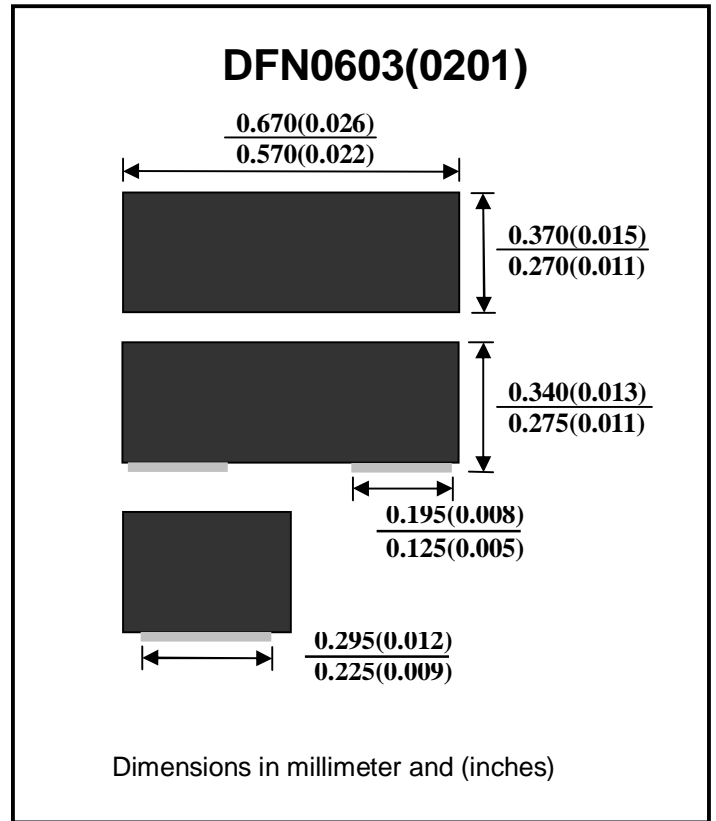


**ESDKR5V0BS****5V Bi-directional ESD****Features**

- n Halogen free.
- n Surface mount package.
- n Bi-directional ESD protection.
IEC61000-4-2 15kV(Contact), 15kV(air).
- n Ultra small SMD package:0201
- n Operating voltage: 5V

MECHANICAL CHARACTERISTICS

- n Case: DFN0603(0201) standard package
- n Terminals: Au / Sn plated, Solderable per MIL-STD-750,
method 2026
- n Marking Code: I
- n Mounting position: Any.
- n Weight: 0.001 gram(approx.)

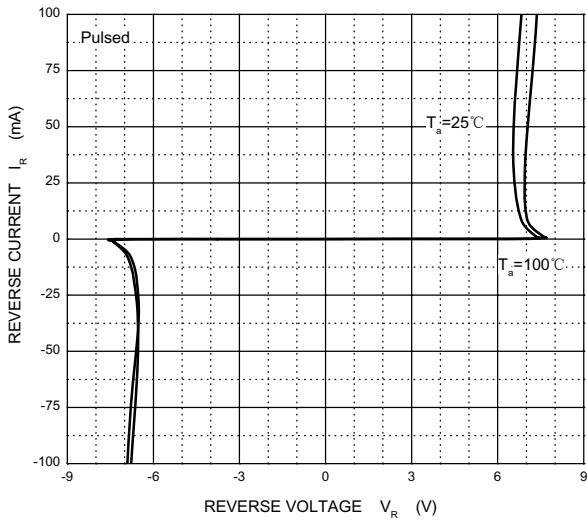
**Maximum Rating And Electrical Characteristics (at Ta=25 unless otherwise noted)**

| Parameter | Condition | Symbol | Min | Typ | Max | Unit |
|--------------------------------|--|--------|-----|-----|-----|------|
| Peak Pulse Power | tp=8/20 us | PpK | | 50 | | W |
| Maximum Peak Pulse Current | tp=8/20 us | Ipp | 3.5 | | | A |
| ESD (Air) | IEC 61000-4-2 | VESD | | ±15 | | kV |
| ESD (Contact) | IEC 61000-4-2 | | | ±15 | | kV |
| Operating Junction Temperature | | Tj | -55 | | 125 | °C |
| Storage Temperature | | Tstg | -55 | | 150 | °C |
| Reverse Stand-Off Voltage | | VRWM | | | 5 | V |
| Reverse Breakdown Voltage | It = 1mA | VBR | 5.6 | | 8 | V |
| Reverse Leakage Current | VRWM = 5V | IR | | | 10 | nA |
| Clamping Voltage | Ipp = 3.5A · tp = 8/20 us | Vc | | | 13 | V |
| Junction Capacitance | Between I/O Pin and GND VR=0V · f=1MHz | Cj | | 3 | 10 | pF |

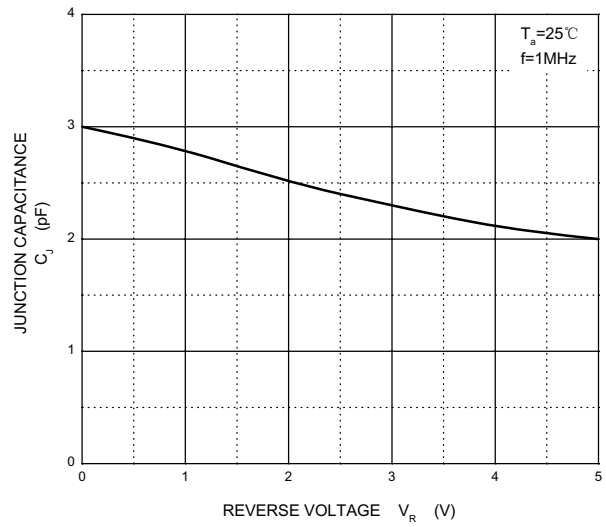


Typical Characteristics

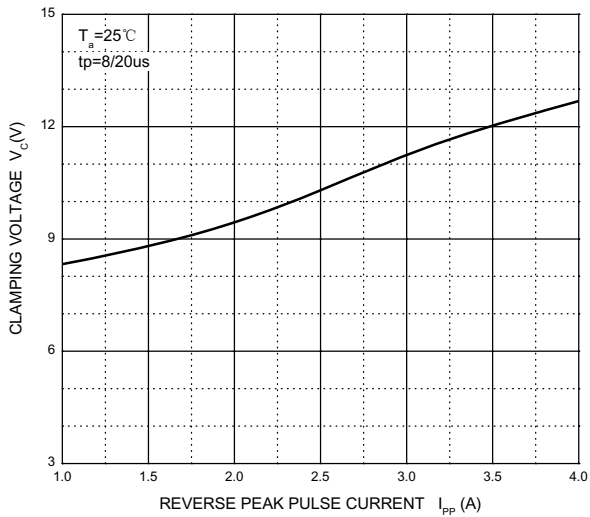
Reverse Characteristics



Capacitance Characteristics

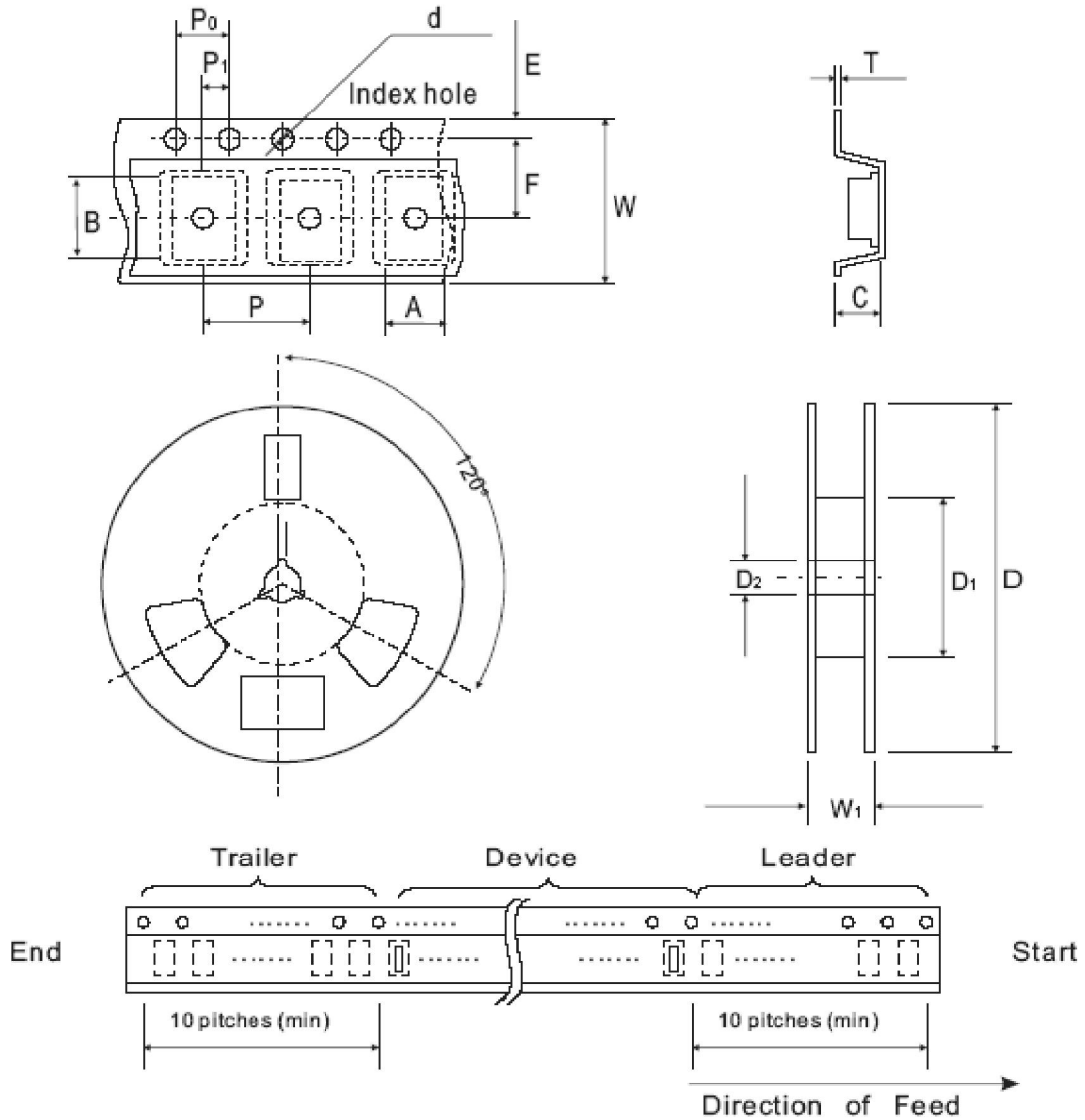


V_C --- I_{PP}





Packing Specification



Tape & Reel Dimensions

| Package | Unit | A | B | C | d | D | D1 | D2 |
|---------|------|-------------|-------------|-------------|-------------|------------|----------|-------------|
| DFN0603 | mm | 0.37±0.03 | 0.67±0.03 | 0.32±0.03 | 1.50±0.10 | 178±1 | 60MIN | 13.0±0.20 |
| | inch | 0.015±0.001 | 0.026±0.001 | 0.013±0.001 | 0.060±0.004 | 7.008±0.04 | 2.362MIN | 0.512±0.008 |

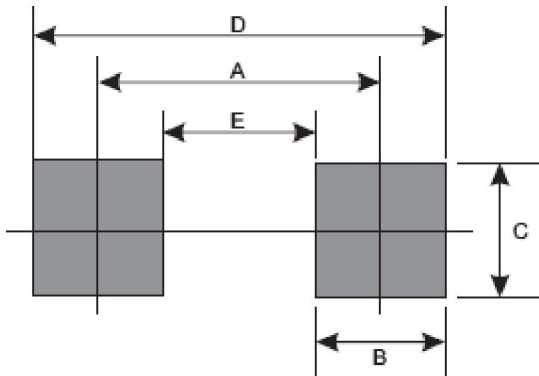
| package | Unit | E | F | P | P0 | P1 | T | W | W1 |
|---------|------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|----------|
| DFN0603 | mm | 1.75±0.10 | 3.5±0.10 | 2.0±0.03 | 4.0±0.10 | 2.0±0.10 | 0.18+0.05 | 8.0±0.10 | 13.5MAX |
| | inch | 0.069±0.004 | 0.138±0.004 | 0.079±0.001 | 0.157±0.004 | 0.079±0.004 | 0.007±0.002 | 0.315±0.004 | 0.531MAX |



Standard Package

| Package | Reel Size | Qty/Reel |
|---------|-----------|------------|
| DFN0603 | 7" | 10,000 pcs |

RECOMMENDED SOLDERING FOOTPRINT

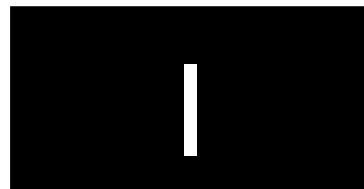


Reflow Soldering

| Product Size | Dimension/ mm | | | | |
|--------------|---------------|--------|--------|--------|--------|
| | A | B | C | D | E |
| DFN0603 | 0.400 | 0.220 | 0.360 | 0.620 | 0.200 |
| | 0.016" | 0.009" | 0.014" | 0.024" | 0.008" |

Marking Code

| Part Number | Marking Code |
|-------------|--------------|
| ESDKR5V0BS | I |



DISCLAIMERS

These products are not designed for use in applications where any failure or malfunction may result in personal injury, death or severe property or environmental damage such as medical, military, aircraft, space or life support equipments.