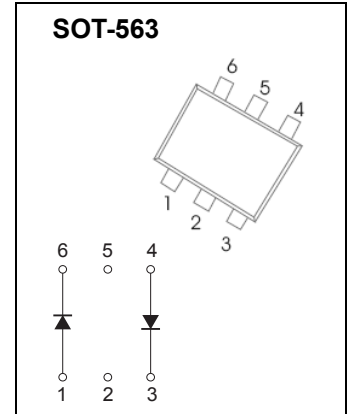




SOT-563 Plastic-Encapsulate Diodes

BAT54V

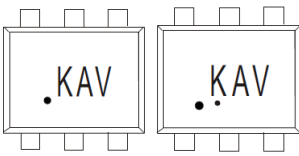
SCHOTTKY BARRIER DIODE



FEATURES

Surface mount schottky barrier diode arrays

Marking: KAV



Solid dot = Green molding compound device, if none, the normal device.

Solid dot = Pin1 indicate.

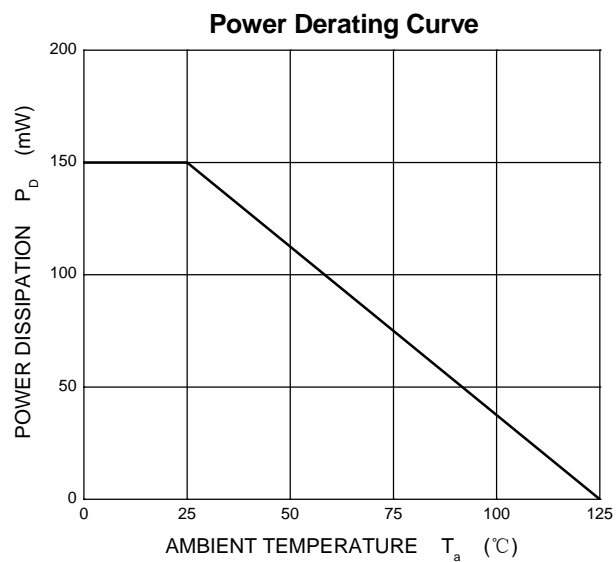
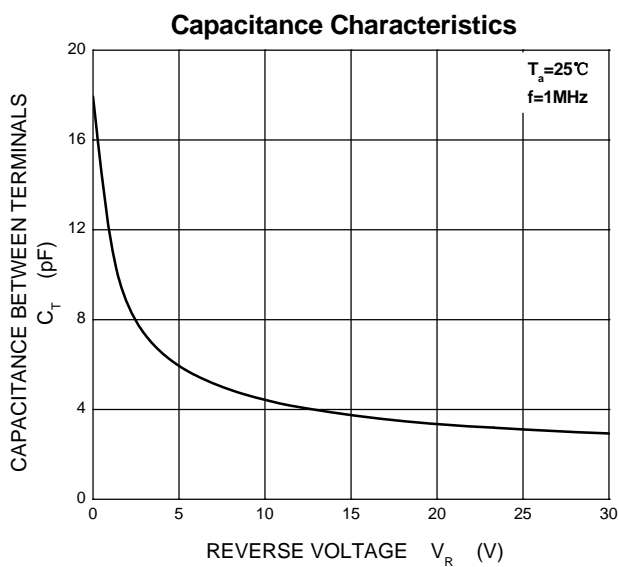
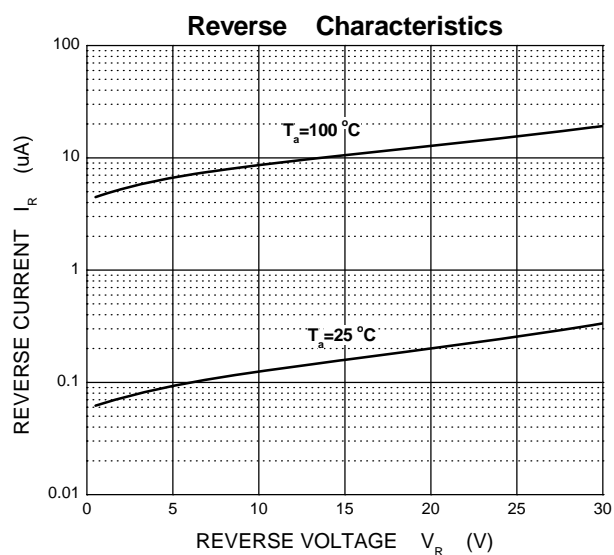
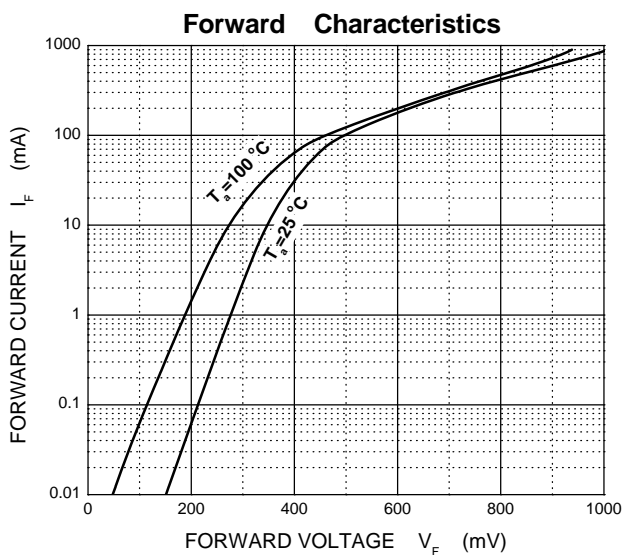
Maximum Ratings @Ta=25°C

| Parameter | Symbol | Limit | Unit |
|---|-----------|---------|------|
| Peak Repetitive Peak Reverse Voltage | V_{RRM} | 30 | V |
| Working Peak Reverse Voltage | V_{RWM} | | |
| DC Blocking Voltage | V_R | | |
| Average Rectified Output Current | I_O | 200 | mA |
| Non-repetitive Peak Forward Surge Current @ t=8.3ms | I_{FSM} | 600 | mA |
| Repetitive Peak Forward Current @ t≤1s, δ≤0.5 | I_{FRM} | 300 | mA |
| Power Dissipation | P_D | 150 | mW |
| Thermal Resistance Junction to Ambient | $R_{θJA}$ | 667 | °C/W |
| Junction Temperature | T_J | 125 | °C |
| Storage Temperature | T_{STG} | -65-125 | °C |

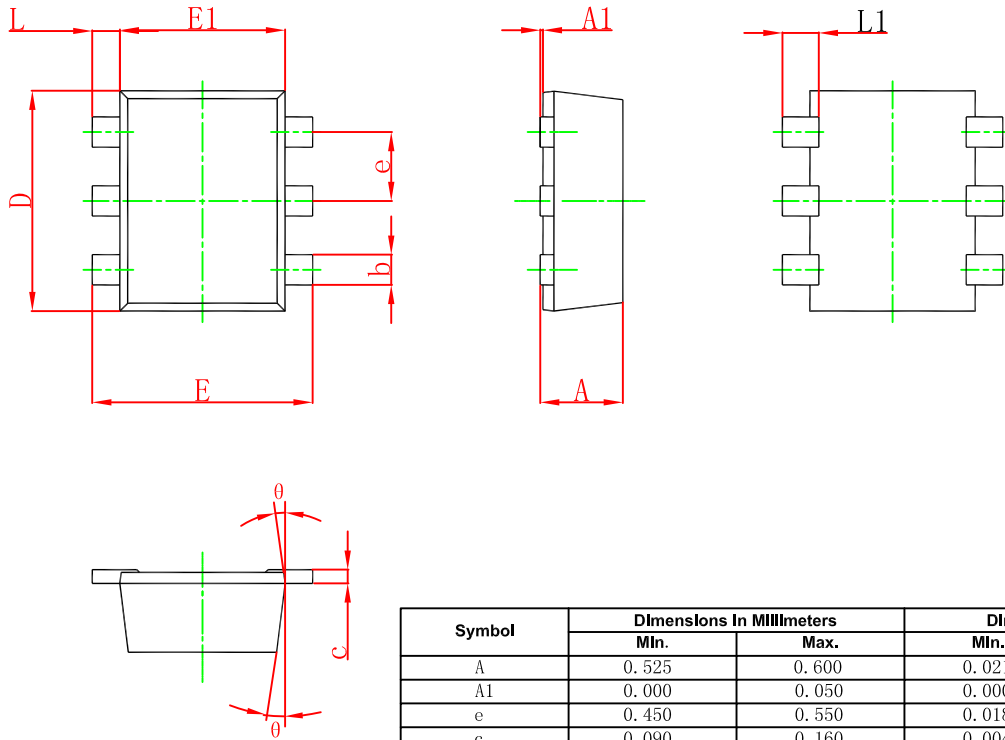
ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)

| Parameter | Symbol | Test conditions | Min | Max | Unit |
|---------------------------------|------------|---|-----|------|------|
| Reverse breakdown voltage | $V_{(BR)}$ | $I_R=100\mu A$ | 30 | | V |
| Reverse voltage leakage current | I_R | $V_R=25V$ | | 2 | uA |
| Forward voltage | V_F | $I_F=1mA$ | | 320 | mV |
| | | $I_F=10mA$ | | 400 | |
| | | $I_F=30mA$ | | 500 | |
| | | $I_F=100mA$ | | 1000 | |
| Total capacitance | C_T | $V_R=1V, f=1MHz$ | | 10 | pF |
| Reverse recovery time | t_{rr} | $I_F=10mA, I_R=10mA\sim 1mA$ $R_L=100\Omega$ | | 5 | ns |

Typical Characteristics

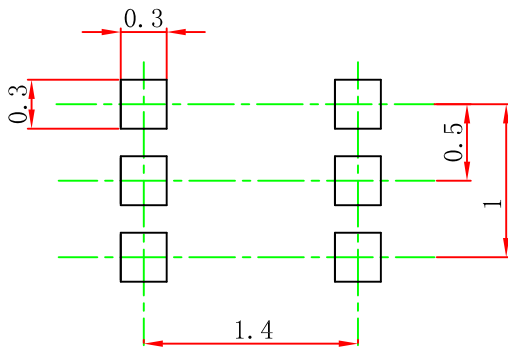


SOT-563 Package Outline Dimensions



| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|----------|---------------------------|-------|----------------------|-------|
| | Min. | Max. | Min. | Max. |
| A | 0.525 | 0.600 | 0.021 | 0.024 |
| A1 | 0.000 | 0.050 | 0.000 | 0.002 |
| e | 0.450 | 0.550 | 0.018 | 0.022 |
| c | 0.090 | 0.160 | 0.004 | 0.006 |
| D | 1.500 | 1.700 | 0.059 | 0.067 |
| b | 0.170 | 0.270 | 0.007 | 0.011 |
| E1 | 1.100 | 1.300 | 0.043 | 0.051 |
| E | 1.500 | 1.700 | 0.059 | 0.067 |
| L | 0.100 | 0.300 | 0.004 | 0.012 |
| L1 | 0.200 | 0.400 | 0.008 | 0.016 |
| θ | 7 °REF. | | 7 °REF. | |

SOT-563 Suggested Pad Layout



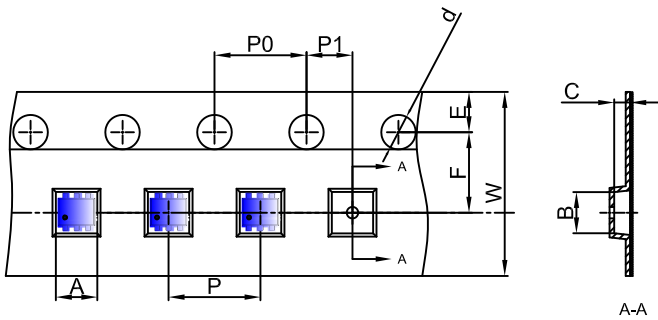
- Note:
1. Controlling dimension: in millimeters.
 2. General tolerance: $\pm 0.05\text{mm}$.
 3. The pad layout is for reference purposes only.

NOTICE

JCET reserve the right to make modifications, enhancements, improvements, corrections or other changes without further notice to any product herein. JCET does not assume any liability arising out of the application or use of any product described herein.

SOT-563 Tape and Reel

SOT-563 Embossed Carrier Tape



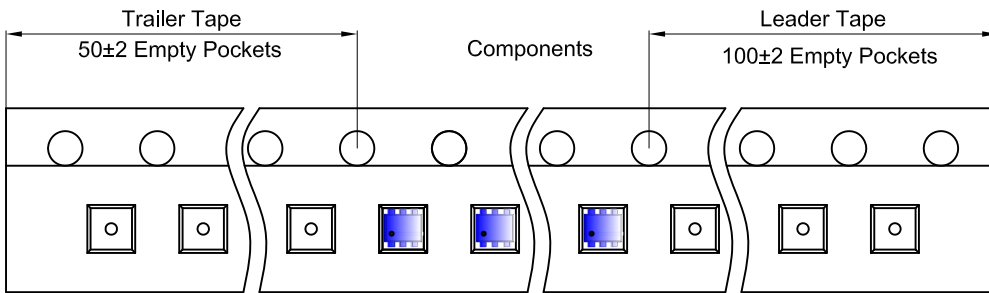
Packaging Description:

SOT-563 parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 3,000 units per 7" or 17.8cm diameter reel. The reels are clear in color and is made of polystyrene plastic (anti-static coated).

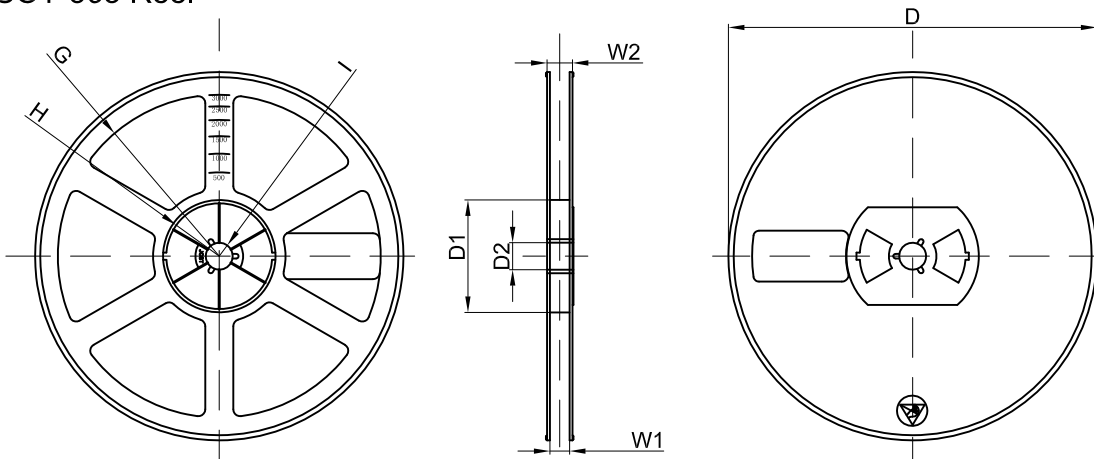
Dimensions are in millimeter

| Pkg type | A | B | C | d | E | F | P0 | P | P1 | W |
|----------|------|------|------|-------|------|------|------|------|------|------|
| SOT-563 | 1.78 | 1.78 | 0.69 | Ø1.50 | 1.75 | 3.50 | 4.00 | 4.00 | 2.00 | 8.00 |

SOT-563 Tape Leader and Trailer



SOT-563 Reel



Dimensions are in millimeter

| Reel Option | D | D1 | D2 | G | H | I | W1 | W2 |
|-------------|---------|-------|-------|--------|--------|-------|------|-------|
| 7" Dia | Ø178.00 | 54.40 | 13.00 | R78.00 | R25.60 | R6.50 | 9.50 | 12.30 |

| REEL | Reel Size | Box | Box Size(mm) | Carton | Carton Size(mm) | G.W.(kg) |
|----------|-----------|------------|--------------|-------------|-----------------|----------|
| 3000 pcs | 7 inch | 45,000 pcs | 203×203×195 | 180,000 pcs | 438×438×220 | |