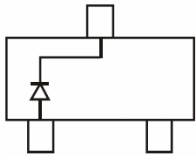
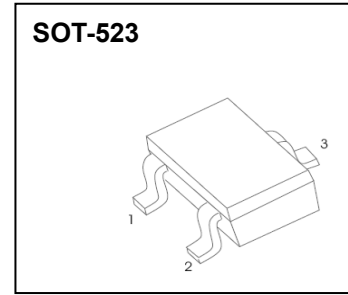


SOT-523 Plastic-Encapsulate Diodes

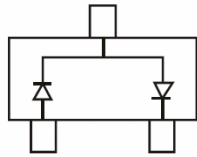
BAS40T/-04T/-05T/-06T SCHOTTKY BARRIER DIODE

FEATURES

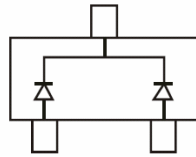
- Low forward voltage
- Fast switching



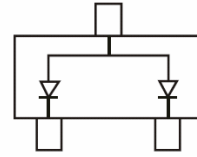
BAS40T MARKING: 43



BAS40-04T MARKING: 44



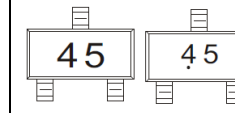
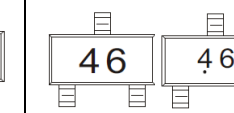


BAS40-05T MARKING: 45



BAS40-06T MARKING: 46

MARKING:

| BAS40T | BAS40-04T | BAS40-05T | BAS40-06T |
|---|--|--|---|
|  |  |  |  |

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

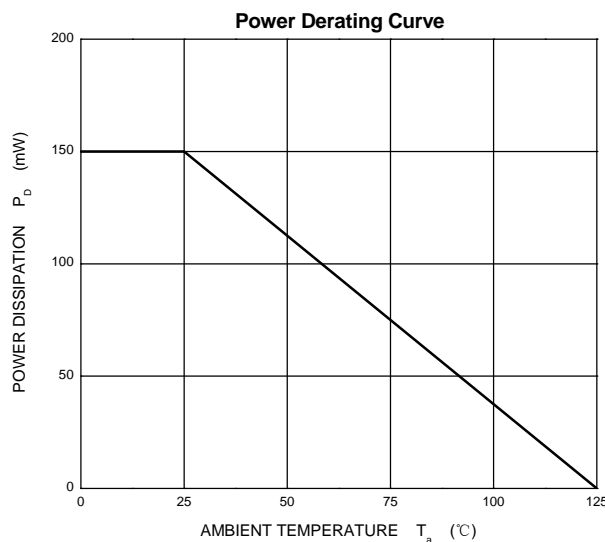
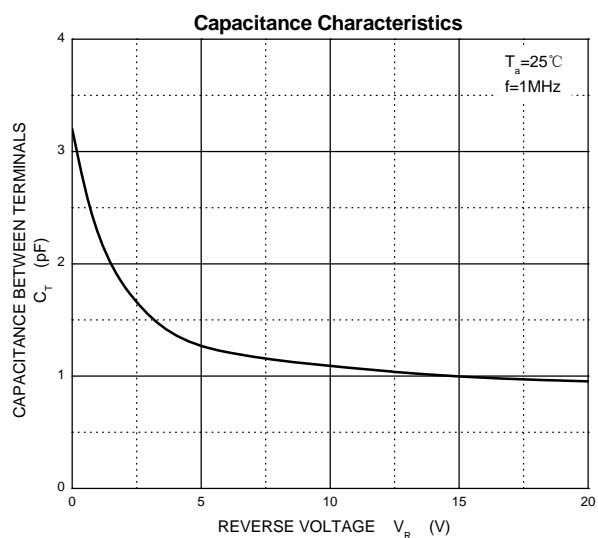
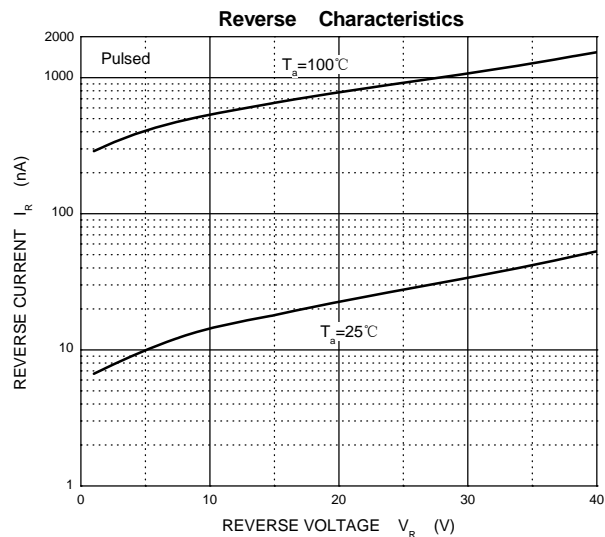
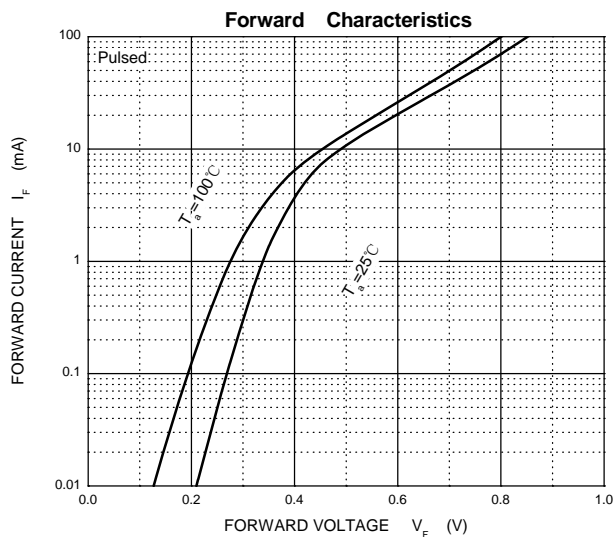
Maximum Ratings @Ta=25°C

| Parameter | Symbol | Limit | Unit |
|---|-----------------|----------|------|
| Peak Repetitive Peak Reverse Voltage | V_{RRM} | 40 | V |
| Working Peak Reverse Voltage | V_{RWM} | | |
| DC Blocking Voltage | V_R | | |
| Forward Continuous Current | I_{FM} | 200 | mA |
| Average Rectified Output Current | I_O | 200 | mA |
| Non-Repetitive Peak Forward Surge Current @ t = 8.3ms | I_{FSM} | 0.6 | A |
| Power Dissipation | P_D | 150 | mW |
| Thermal Resistance Junction to Ambient | $R_{\theta JA}$ | 667 | °C/W |
| Operating Junction Temperature | T_J | 125 | °C |
| Storage Temperature | T_{STG} | -55~+150 | °C |

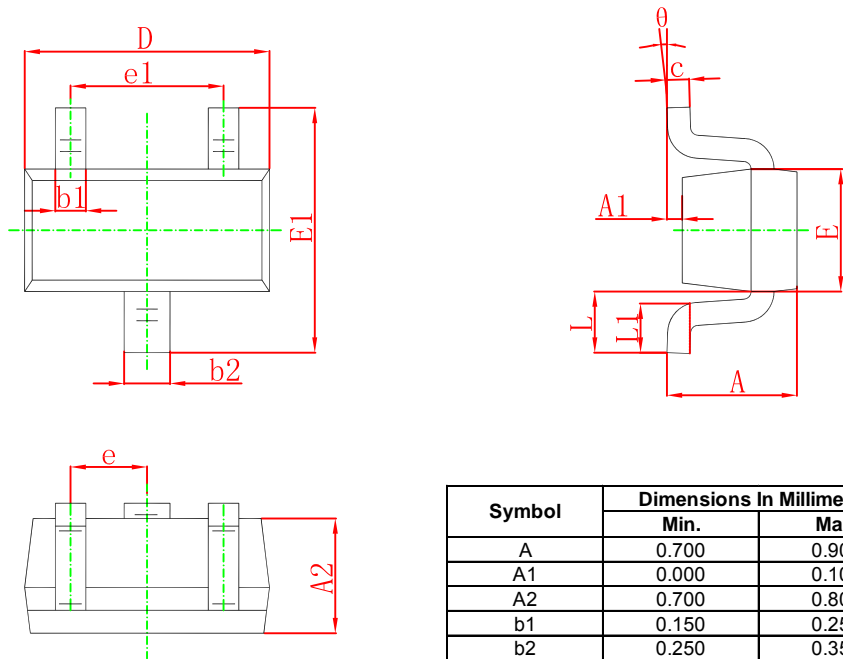
Electrical Characteristics @Ta=25°C

| Parameter | Symbol | Min | Typ | Max | Unit | Conditions |
|---------------------------|------------|-----|-----|------|---------|--|
| Reverse Breakdown Voltage | $V_{(BR)}$ | 40 | | | V | $I_R=10\mu A$ |
| Forward Voltage | V_{F1} | | | 0.38 | V | $I_F=1mA$ |
| | V_{F2} | | | 1 | V | $I_F=40mA$ |
| Reverse Current | I_R | | | 0.2 | μA | $V_R=30V$ |
| Diode Capacitance | C_D | | | 5 | pF | $V_R=0, f=1MHz$ |
| Reverse Recovery Time | t_{rr} | | | 5 | ns | $I_F=I_R=10mA$ $I_{rr}=0.1I_R, R_L=100\Omega$ |

Typical Characteristics

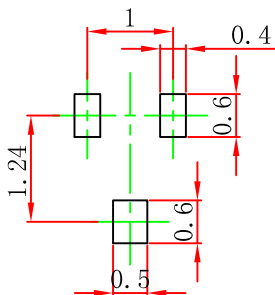


SOT-523 Package Outline Dimensions



| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|--------|---------------------------|-------|----------------------|-------|
| | Min. | Max. | Min. | Max. |
| A | 0.700 | 0.900 | 0.028 | 0.035 |
| A1 | 0.000 | 0.100 | 0.000 | 0.004 |
| A2 | 0.700 | 0.800 | 0.028 | 0.031 |
| b1 | 0.150 | 0.250 | 0.006 | 0.010 |
| b2 | 0.250 | 0.350 | 0.010 | 0.014 |
| c | 0.100 | 0.200 | 0.004 | 0.008 |
| D | 1.500 | 1.700 | 0.059 | 0.067 |
| E | 0.700 | 0.900 | 0.028 | 0.035 |
| E1 | 1.450 | 1.750 | 0.057 | 0.069 |
| e | 0.500 TYP. | | 0.020 TYP. | |
| e1 | 0.900 | 1.100 | 0.035 | 0.043 |
| L | 0.400 REF. | | 0.016 REF. | |
| L1 | 0.260 | 0.460 | 0.010 | 0.018 |
| theta | 0° | 8° | 0° | 8° |

SOT-523 Suggested Pad Layout



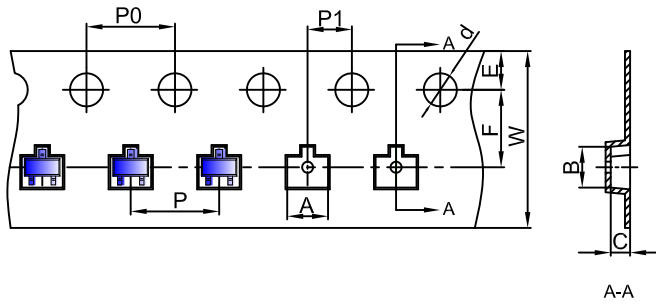
- Note:
1. Controlling dimension: in millimeters.
 2. General tolerance: ± 0.05 mm.
 3. The pad layout is for reference purposes only.

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-523 Tape and Reel

SOT-523 Embossed Carrier Tape

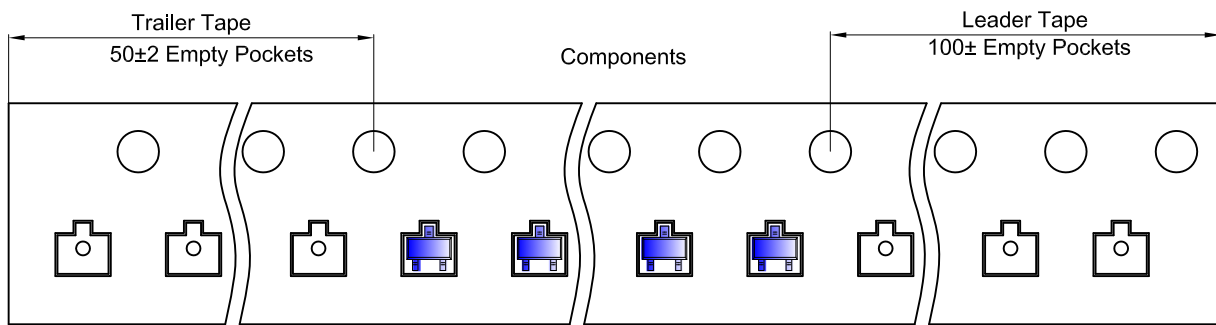


Packaging Description:

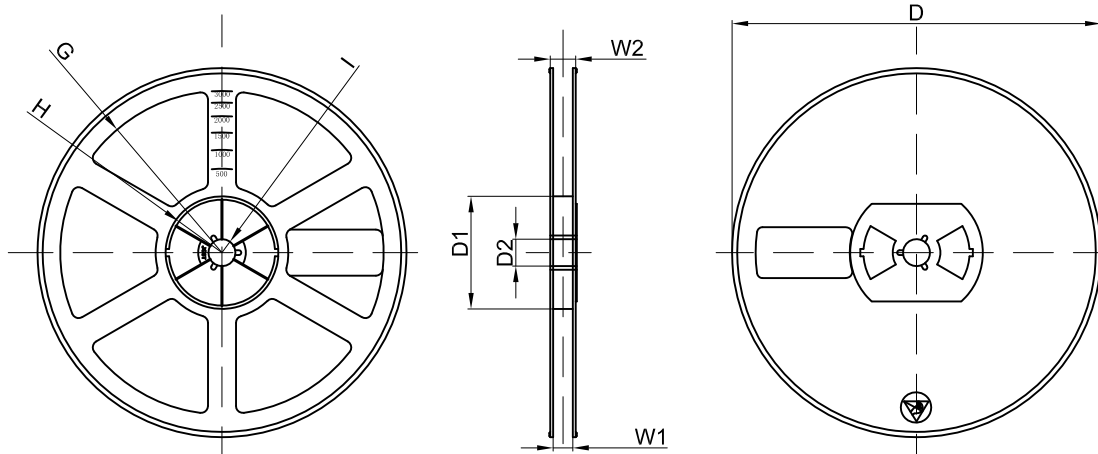
SOT-523 parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts 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-523 | 1.85 | 1.85 | 0.875 | Ø1.50 | 1.75 | 3.50 | 4.00 | 4.00 | 2.00 | 8.00 |

SOT-523 Tape Leader and Trailer



SOT-523 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 | |