



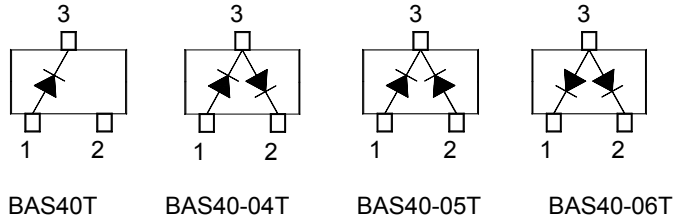
### BAS40xxT SURFACE MOUNT SCHOTTKY BARRIER DIODE

#### Features

- Low forward voltage
- Fast switching

#### Marking:

- BAS40T Marking Code: **43**
- BAS40-04T Marking Code: **44**
- BAS40-05T Marking Code: **45**
- BAS40-06T Marking Code: **46**



**SOT-523**

#### Absolute Maximum Ratings (T<sub>a</sub> = 25 °C)

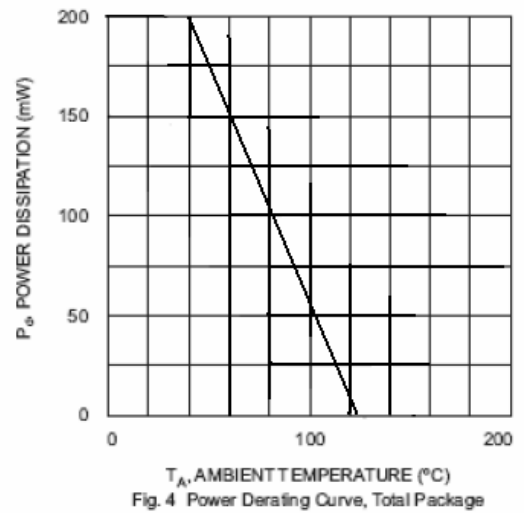
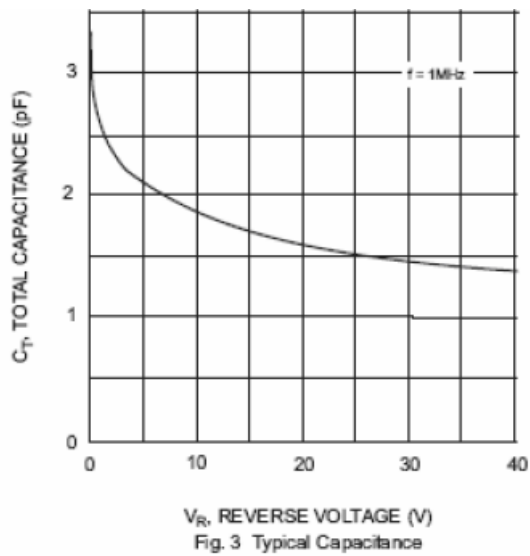
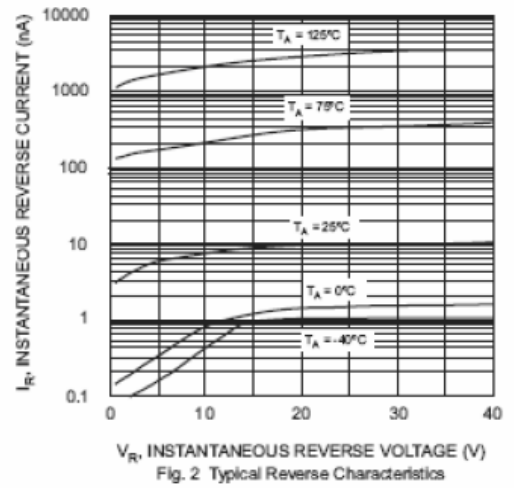
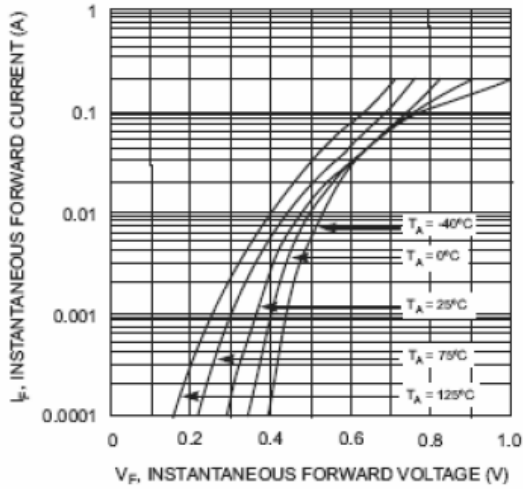
Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	40	V
DC Blocking Voltage	V <sub>R</sub>	40	V
Forward Continuous Current	I <sub>F</sub>	200	mA
Peak Forward Surge Current (at t <sub>p</sub> < 1 s)	I <sub>FSM</sub>	600	mA
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature Range	T <sub>S</sub>	- 55 to + 150	°C

#### Characteristics at T<sub>a</sub> = 25 °C

Parameter	Symbol	Min.	Max.	Unit
Forward Voltage at I <sub>F</sub> = 1 mA	V <sub>F</sub>	-	380	mV
at I <sub>F</sub> = 40 mA	V <sub>F</sub>	-	1000	mV
Reverse Current at V <sub>R</sub> = 30 V	I <sub>R</sub>	-	200	nA
Reverse Breakdown Voltage at I <sub>R</sub> = 10 μA	V <sub>(BR)R</sub>	40	-	V
Reverse Recovery Time from I <sub>F</sub> = 10 mA through I <sub>R</sub> = 10 mA to I <sub>R</sub> = 1 mA	t <sub>rr</sub>	-	5	ns
Total Capacitance at V <sub>R</sub> = 0 V, f = 1 MHz	C <sub>T</sub>	-	5	pF

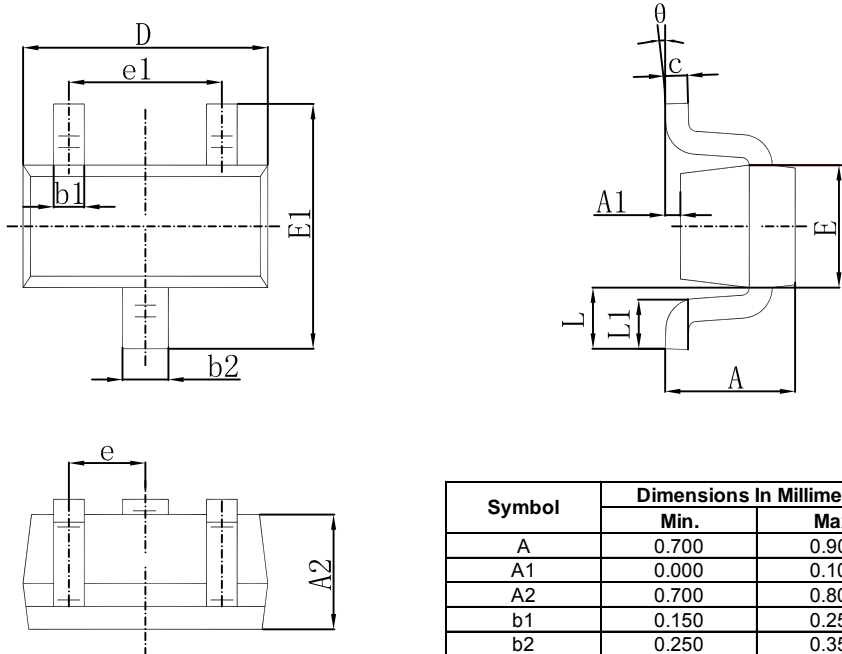


## Typical Characteristics



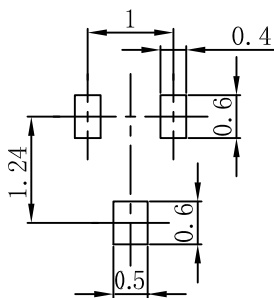


### SOT-523 Package Outline Dimensions



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
θ	0°		8°	

### SOT-523 Suggested Pad Layout



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