

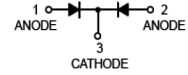
# Surface Mount Schottky Barrier Diode

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## Features:

- Low Forward Voltage Drop
- Fast Switching
- Ultra-Small Surface Mount Package
- PN Junction Guard Ring for Transient and ESD Protection



**SOT-523**

## Applications:

Schottky barrier diode

## Max. Rating @ T<sub>A</sub> = 25°C unless otherwise specified

Parameter	Symbol	Limits	Unit
Peak repetitive peak reverse voltage Working peak reverse voltage DC reverse voltage	V <sub>RRM</sub> V <sub>RMS</sub> V <sub>R</sub>	30	V
Forward continuous voltage	I <sub>F</sub>	200	mA
Repetitive peak forward voltage	I <sub>FRM</sub>	300	mA
Non-repetitive peak forward surge current @t<1.0s	I <sub>FSM</sub>	600	mA
Power dissipation	P <sub>D</sub>	150	mW
Thermal resistance, junction to ambient	R <sub>θJA</sub>	833	°C/W
Junction and storage temperature	T <sub>j</sub> , T <sub>STG</sub>	-65 to +150	°C

## Electrical Characteristics @ T<sub>A</sub> = 25°C unless otherwise specified

Parameter	Symbol	Conditions	Min.	Max.	Unit
Reverse breakdown voltage	V <sub>(BR)</sub>	I <sub>R</sub> = 100μA	30	-	V
Leakage current	I <sub>R</sub>	V <sub>R</sub> = 25V	-	2	μA
Forward voltage	V <sub>F</sub>	I <sub>F</sub> = 0.1mA I <sub>F</sub> = 1mA I <sub>F</sub> = 10mA I <sub>F</sub> = 30mA I <sub>F</sub> = 100mA	-	240 320 400 500 1,000	mV
Typical total capacitance	C <sub>T</sub>	V <sub>R</sub> = 1V, f = 1MHz	-	10	pF
Reverse recovery time	t <sub>rr</sub>	I <sub>F</sub> = I <sub>R</sub> = 10mA I <sub>R</sub> = 1mA R <sub>L</sub> = 100Ω	-	5	ns

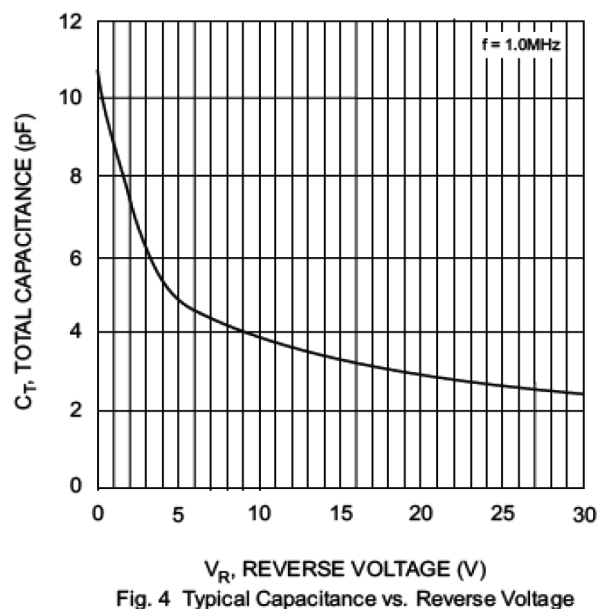
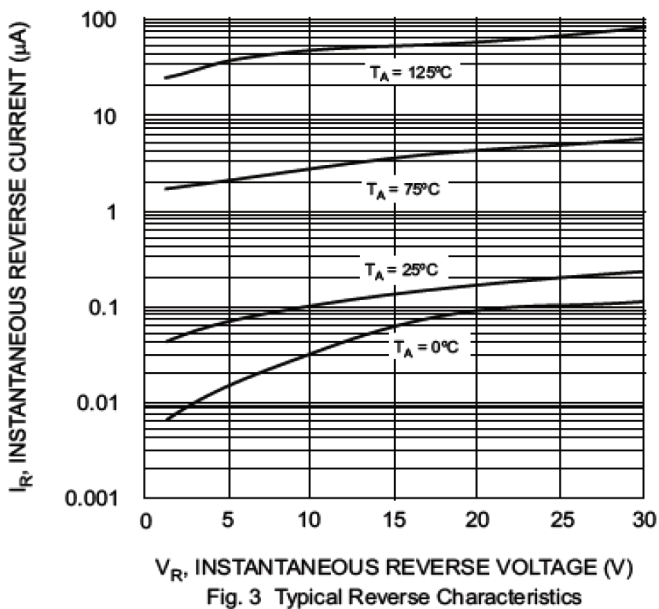
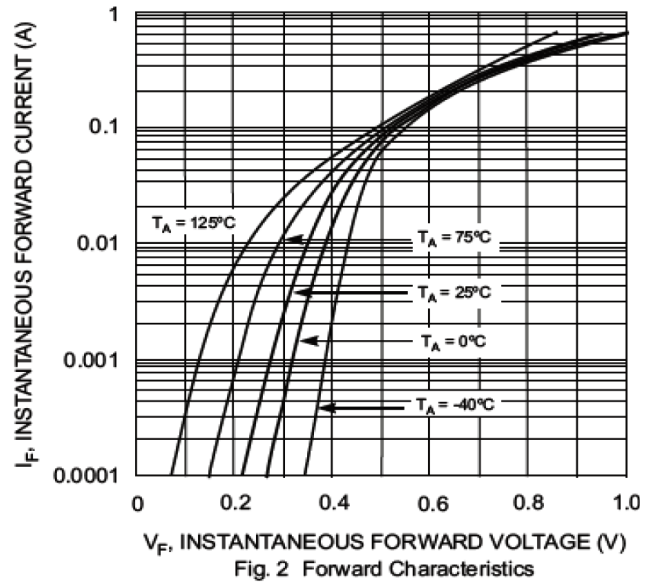
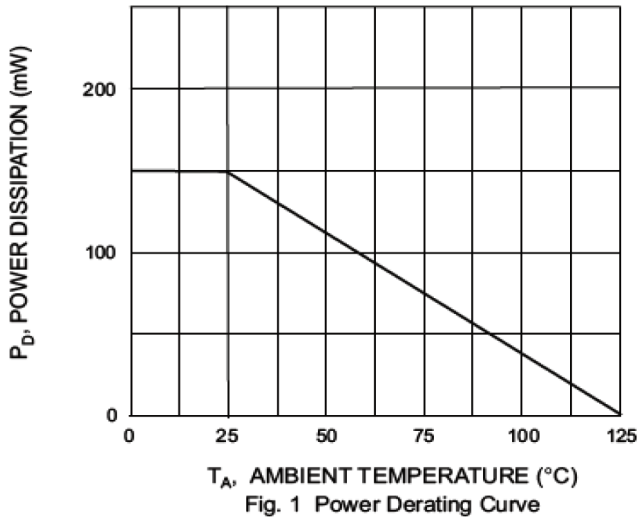
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# Surface Mount Schottky Barrier Diode

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Typical Characteristics @  $T_A = 25^\circ\text{C}$  unless otherwise specified

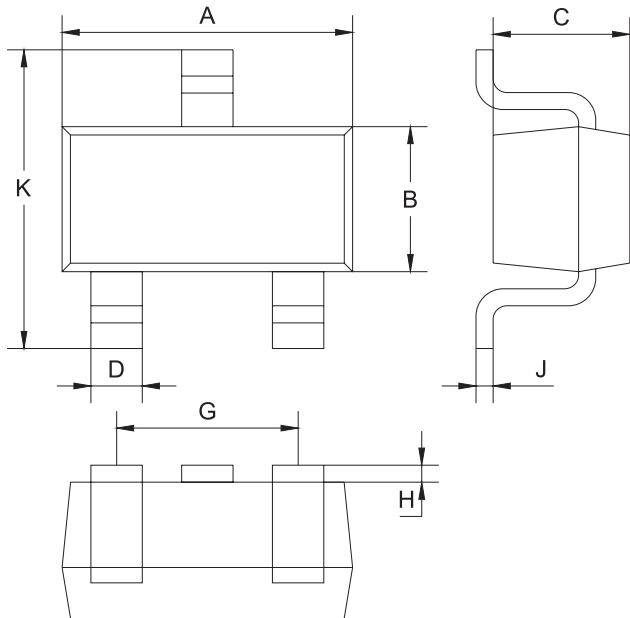


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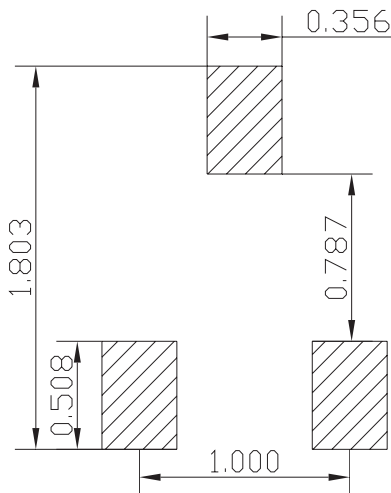
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## Plastic surface mounted package



SOT-523		
Dim	Min	Max
A	1.5	1.7
B	0.75	0.85
C	0.6	0.8
D	0.15	0.3
G	0.9	1.1
H	0.02	0.1
J	0.1 Typical	
K	1.45	1.75
All Dimensions in mm		

## Soldering Footprint



Unit : mm

## Package Information

Device	Package	Shipping
BAT54CT-7-F	SOT-523	3,000 / Tape & Reel

## Part Number Table

Description	Part Number
Surface Mount Schottky Barrier Diode	BAT54CT-7-F

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