

■Schottky Barrier Diode

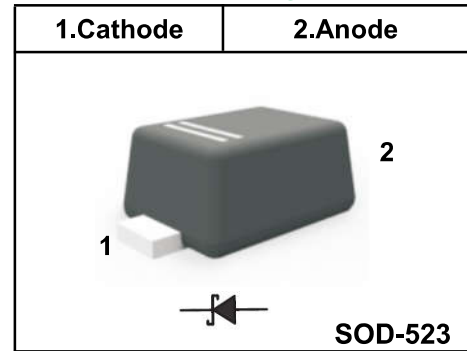
FEATURES

- Extremely fast switching speed.
- Low forward voltage—0.35v(Typ).

APPLICATIONS

- High speed switching application.

Pinning



Marking Code

BAT54X	JV
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Maximum Rating@Ta=25 °C unless otherwise specified

Parameter	Symbol	Limits	Unit
DC Reverse voltage	V_R	30	V
Continuous forward current	I_F	200	mA
Peak forward surge current	I_{FSM}	600	mA
Total power dissipation	P_{tot}	200	mW
Total resistance junction to ambient	$R_{\theta JA}$	635	°C/W
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55-150	°C

Electrical Characteristics @Ta=25 °C unless otherwise specified

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Reverse breakdown voltage	$V_{(BR)R}$	30			V	$I_R=100\mu A$
Forward voltage	V_F		0.22 0.41 0.52 0.29 0.35	0.24 0.5 0.8 0.32 0.40	V	$I_F=0.1mA$ $I_F=30mA$ $I_F=100mA$ $I_F=1.0mA$ $I_F=10mA$
Reverse current	I_R		0.5	2.0	μA	$V_R=25V$
Diode capacitance	C_d		7.6	10	pF	$V_R=1V, f=1MHz$
Reverse recovery time	t_{rr}			5	ns	$I_F=I_R=10mA$

Typical characteristics @Ta=25°C unless otherwise specified

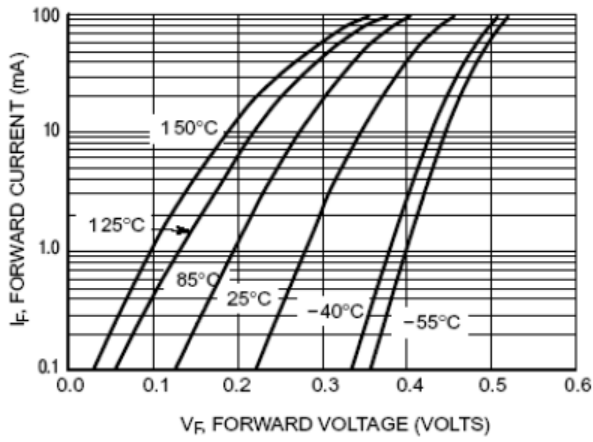


Figure 2. Forward Voltage

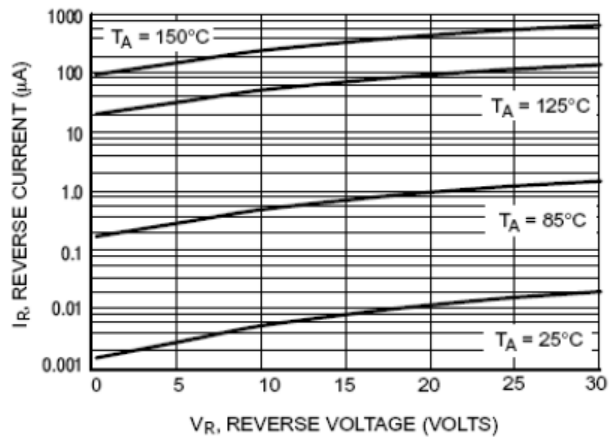


Figure 3. Leakage Current

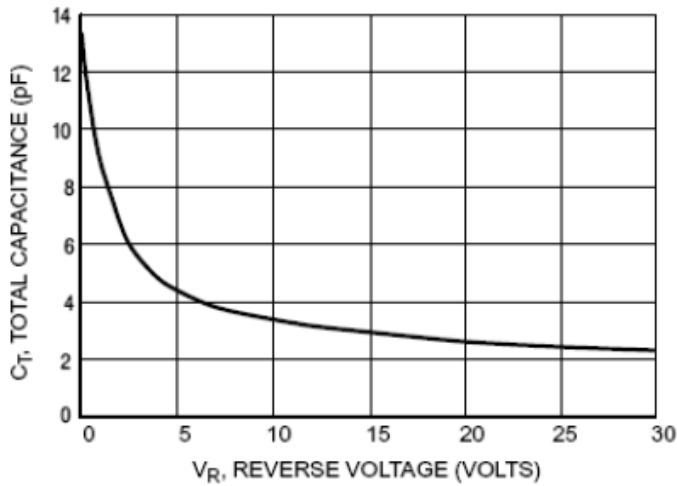


Figure 4. Total Capacitance

Ordering information

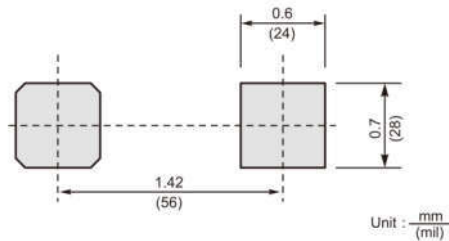
Package	Packing Description	Packing Quantity
SOD-523	Tape/Reel, 7" reel	3000PCS/Reel 120000PCS/Carton

Package Dimensions

SOD-523

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	0.51	0.77	20	30
e	0.25	0.35	10	14
C	0.08	0.15	3	6
D	1.10	1.30	43	51
E	0.75	0.99	30	39
HE	1.50	1.70	59	67
N	0.35ref		14ref	
L	0.2ref		8ref	
P	R0.1 ALL ROUND		R4.0 ALL ROUND	
∠	10°			

The recommended mounting pad size



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