

Technical Data
Data Sheet 3329, Rev. -

BAT54/A/C/S -G SCHOTTKY RECTIFIER

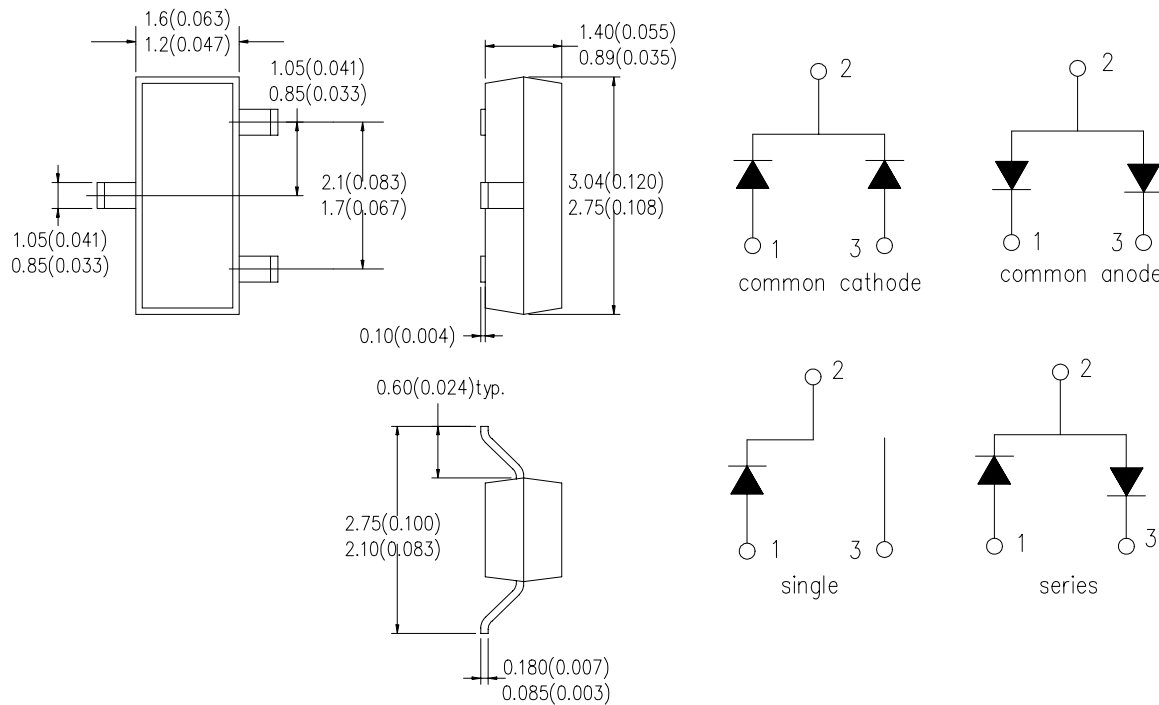
Applications:

- Small signal switching

Features:

- Negligible switching losses
- Very small conduction losses
- Low forward voltage drop
- Surface mount device
- Double diodes with different pinning are available
- Schottky barrier diodes encapsulated in a SOT-23 small SMD packages
- Green Products in Compliance with the RoHS Directive

Mechanical Dimensions: In Inches / mm



SOT-23 Package

BAT54C-G	Common Cathode	BAT54A-G	Common Anode
BAT54-G	Single	BAT54S-G	Series

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Maximum Ratings:

Green Products

Characteristics	Symbol	Condition	Max.	Units
Max. DC Reverse Voltage	V_R	-	30	V
Max. Average Forward Current	$I_{F(AV)}$		0.3	A
Max. Peak One Cycle Non-Repetitive Surge Current (per leg)	I_{FSM}	8.3 ms, half Sine pulse	1.2	A
Power dissipation #	P_{tot}	$T_{amb}=25^{\circ}C$	250	mW

for double diodes, P_{tot} is the total dissipation of both diodes.

Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop (per leg) *	V_{F1}	@ 0.1m A, Pulse, $T_J = 25^{\circ}C$ @ 1m A, Pulse, $T_J = 25^{\circ}C$ @ 10m A, Pulse, $T_J = 25^{\circ}C$ @ 30m A, Pulse, $T_J = 25^{\circ}C$ @ 100m A, Pulse, $T_J = 25^{\circ}C$	240 320 400 500 900	mV
Max. Reverse Current (per leg) *	I_{R1}	@ $V_R = 30$ V, Pulse, $T_J = 25^{\circ}C$	1	μA
	I_{R2}	@ $V_R = 30$ V, Pulse, $T_J = 100^{\circ}C$	100	μA
Max. Junction Capacitance (per leg)	C_T	@ $V_R = 1$ V, $T_C = 25^{\circ}C$ $f_{SIG} = 1$ MHz	10	pF
Reverse recovery time	t_{rr}	$I_F = 10$ mA $I_R = 10$ mA $T_j = 25^{\circ}C$ $I_{rr} = 1$ mA $R_L = 100 \Omega$	5	ns

Pulse test :

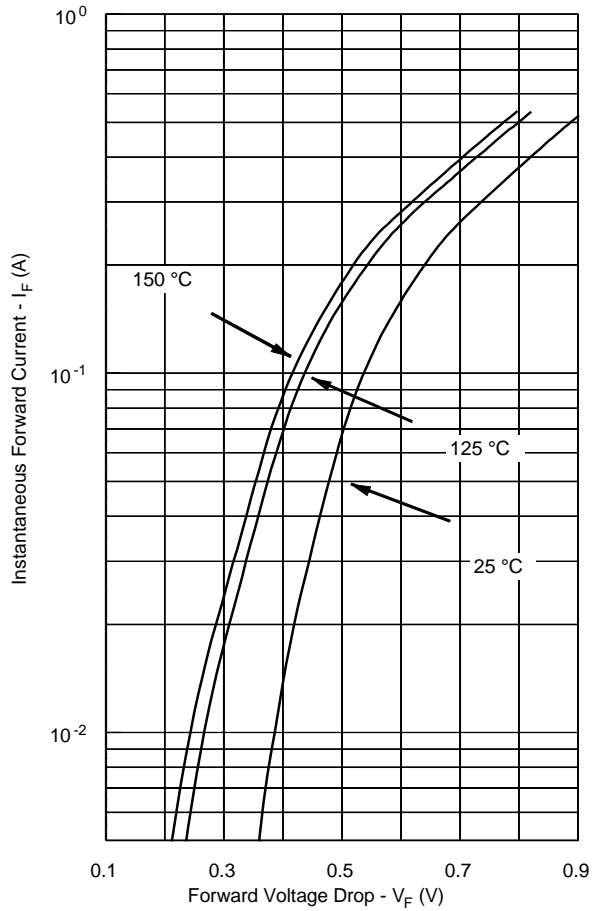
* $t_p = 380$ ms, $\delta < 2\%$

** $t_p = 5$ ms, $\delta < 2\%$

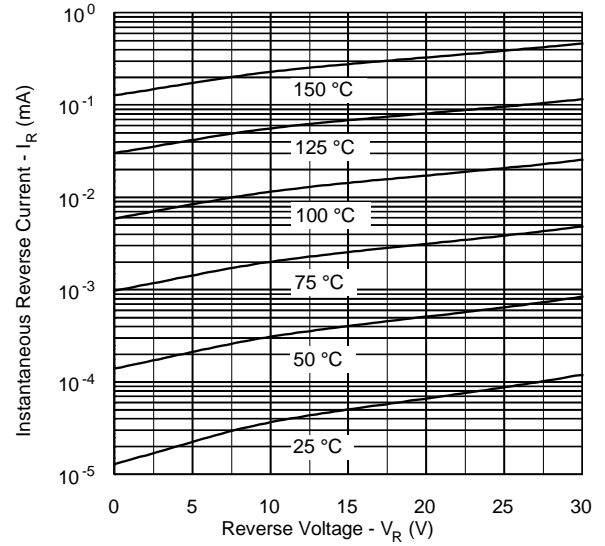
Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Max. Junction Temperature	T_J	-	150	$^{\circ}C$
Max. Storage Temperature	T_{stg}	-	-65 to +150	$^{\circ}C$
Maximum temperature for soldering during 10s	T_L	-	260	$^{\circ}C$
Junction to ambient	$R_{\theta JA}$	-	500	$^{\circ}C/W$
Case Style	SOT-23			

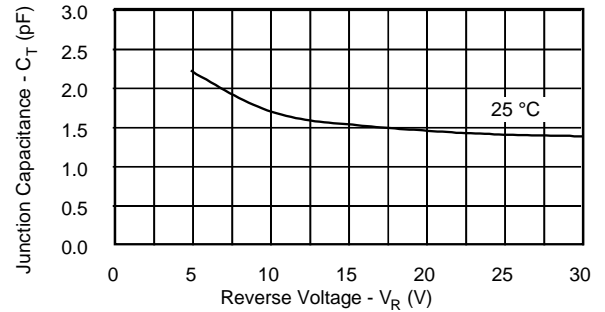
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance



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