

BAT54W

SINGLE SCHOTTKY BARRIER DIODE

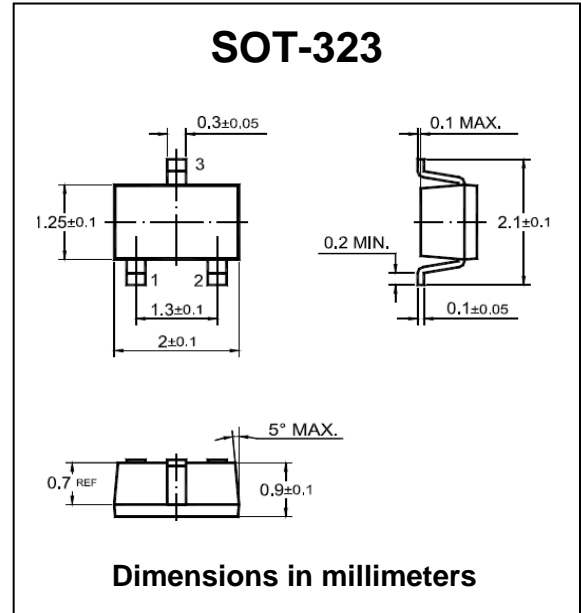
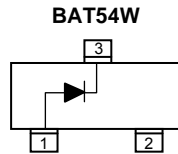
PRV : 30 Volts
Io : 200 mA

FEATURES :

- * Low forward voltage drop
- * Ultra high-speed switching
- * Very small SMD package
- * Guard ring protected
- * Pb / RoHS Free

MECHANICAL DATA :

- * Case : SOT-323 plastic Case



MAXIMUM RATINGS

Rating at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	30	V
Maximum Rectified Average Forward Current	$I_{F(AV)}$	200	mA
Maximum Repetitive Peak Forward Current	I_{FRM}	300	mA
Maximum Peak Forward Surge Current at $t_p < 10$ ms	I_{FSM}	600	mA
Total Power Dissipation	P_{tot}	200	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	625	K/W
Junction Temperature Range	T_J	125	°C
Storage Temperature Range	T_{STG}	-65 to +150	°C

ELECTRICAL CHARACTERISTICS (Rating at 25 °C ambient temperature unless otherwise specified.)

Parameter	Test Condition	Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$I_R = 100 \mu A$ pulses	$V_{(BR)}$	30	-	-	V
Leakage Current (Note 1)	$V_R = 25$ V	I_R	-	-	2	μA
Forward Voltage (Note 1)	$I_F = 0.1$ mA	V_F	-	-	240	mV
	$I_F = 1$ mA	V_F	-	-	320	mV
	$I_F = 10$ mA	V_F	-	-	400	mV
	$I_F = 30$ mA	V_F	-	-	500	mV
	$I_F = 100$ mA	V_F	-	-	800	mV
Diode Capacitance	$V_R = 1$ V, $f = 1$ MHz	C_{tot}	-	-	10	pF
Reverse Recovery Time	$I_F = 10$ mA through $I_R = 10$ mA, to $I_{rr} = 1$ A, $R_L = 100 \Omega$	T_{rr}	-	-	5	ns

Note : (1) Pulse test $t_p = 300 \mu s$, $\delta = 0.02$