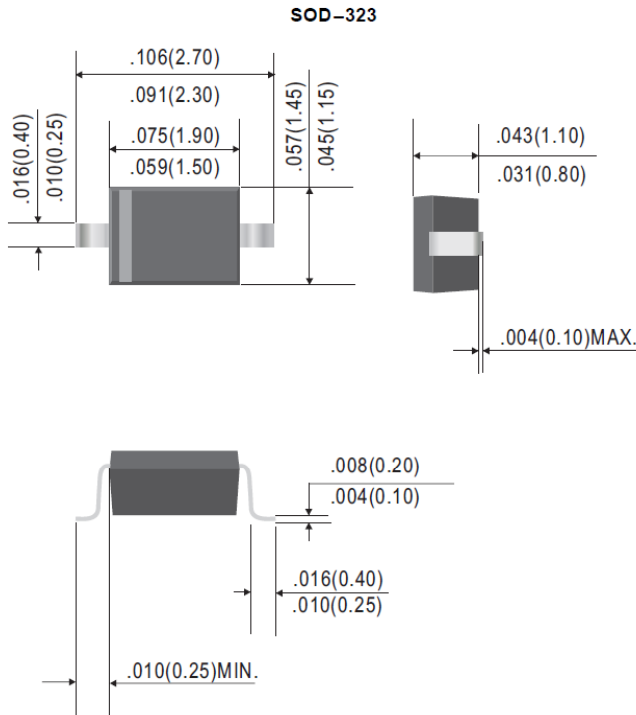




# BAT54HT1



## 200mA Surface Mount Schottky Barrier Rectifiers-30V



Dimensions in inches and (millimeters)

### FEATURES

- Extremely Fast Switching Speed
- Low Forward Voltage — 0.35 Volts (Typ) @  $I_F = 10 \text{ mAdc}$
- Device Marking: JV
- RoHS product for packing code suffix "G"
- Halogen free product for packing code suffix "H"
- Moisture Sensitivity Level 1
- Polarity: Color band denotes cathode end

Maximum Ratings ( $T_J=125^\circ\text{C}$ unless otherwise noted)			
Rating	Symbol	Value	Unit
Reverse Voltage	$V_R$	30	V

Thermal Characteristics			
Characteristic	Symbol	Max	Unit
Total Device Dissipation FR-5 Board,* $T_A=25^\circ\text{C}$ Derate above $25^\circ\text{C}$	$P_D$	200 1.57	mW mW/ $^\circ\text{C}$
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	635	$^\circ\text{C}/\text{W}$
Operating Temperature	$T_J$	-55~+150	$^\circ\text{C}$
Storage Temperature	$T_{STG}$	-55~+150	$^\circ\text{C}$

\*FR-4 Minimum Pad



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## 200mA Surface Mount Schottky Barrier Rectifiers-30V

Electrical Characteristics (T <sub>A</sub> =25°C unless otherwise noted)(EACH DIODE)					
Parameter	Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage (I <sub>R</sub> =10μA)	V <sub>(BR)R</sub>	30	—	—	Volts
Total Capacitance (V <sub>R</sub> = 1.0 V, f = 1.0 MHz)	C <sub>T</sub>	—	7.6	10	pF
Reverse Leakage (V <sub>R</sub> = 25 V)	I <sub>R</sub>	—	0.5	2	μAdc
Forward Voltage (I <sub>F</sub> = 0.1 mAdc)	V <sub>F</sub>	—	0.22	0.24	Vdc
Forward Voltage (I <sub>F</sub> = 0.15 mAdc)	V <sub>F</sub>	—	0.24	0.26	Vdc
Forward Voltage (I <sub>F</sub> = 0.15 mAdc, T <sub>J</sub> = -25°C)	V <sub>F</sub>	—	0.33	0.35	Vdc
Forward Voltage (I <sub>F</sub> = 0.15 mAdc, T <sub>J</sub> = 85°C)	V <sub>F</sub>	—	0.16	0.18	Vdc
Forward Voltage (I <sub>F</sub> = 30 mAdc)	V <sub>F</sub>	—	0.41	0.5	Vdc
Forward Voltage (I <sub>F</sub> = 100 mAdc)	V <sub>F</sub>	—	0.52	1	Vdc
Reverse Recovery Time (I <sub>F</sub> = I <sub>R</sub> = 10 mAdc, I <sub>R(REC)</sub> = 1.0 mAdc)	t <sub>rr</sub>	—	—	5	ns
Forward Voltage (I <sub>F</sub> = 1.0 mAdc)	V <sub>F</sub>	—	0.29	0.32	Vdc
Forward Voltage (I <sub>F</sub> = 10 mAdc)	V <sub>F</sub>	—	0.34	0.4	Vdc
Forward Current (DC)	I <sub>F</sub>	—	—	200	mAdc
Repetitive Peak Forward Current	I <sub>FRM</sub>	—	—	300	mAdc
Non-Repetitive Peak Forward Current (t < 1.0 s)	I <sub>FSM</sub>	—	—	600	mAdc

### TYPICAL CHARACTERISTICS

