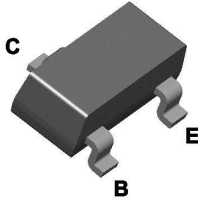




# RECTRON

## RECTIFIER SPECIALISTS

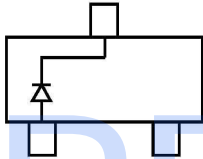
### BAS40W-04-05-06



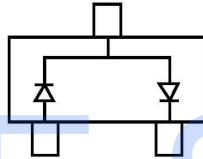
SOT-323

### Mechanical Data

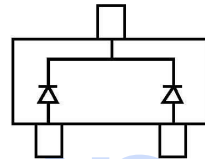
Case: SOT-323, Molded Plastic  
 Terminals: Solderable per MIL-STD-202, Method 208  
 Polarity: See Diagrams  
 Marking: See Diagrams  
 Weight: 0.006 grams (approx.)



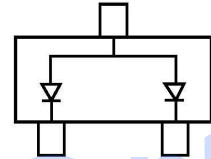
BAS40W Marking: 43, K43



BAS40W-04 Marking: 44, K44



BAS40W-05 Marking: 45, K45



BAS40W-06 Marking: 46, K46

### Maximum Ratings @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	BAS40W	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	40	V
RMS Reverse Voltage	$V_{R(RMS)}$	28	V
Forward Continuous Current (Note 1)	$I_{FM}$	200	mA
Non-Repetitive Peak Forward Surge Current @ $t = 1.0\text{s}$	$I_{FSM}$	600	mA
Power Dissipation (Note 1)	$P_d$	200	mW
Thermal Resistance Junction to Ambient Air (Note 1)	$R_{\theta JA}$	625	K/W
Operating Junction Temperature Range	$T_j$	-55 to +125	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-65 to +150	$^\circ\text{C}$

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

Characteristic	Symbol	Min	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 2)	$V_{(BR)R}$	40	—	V	$I_R = 10\mu\text{A}$
Forward Voltage	$V_{FM}$	—	380 1000	mV mV	$I_F = 1.0\text{mA}$ , $t_p < 300\mu\text{s}$ $I_F = 40\text{mA}$ , $t_p < 300\mu\text{s}$
Peak Reverse Current	$I_{RM}$	—	200	nA	$V_R = 30\text{V}$
Junction Capacitance	$C_j$	—	5.0	pF	$V_R = 0$ , $f = 1.0\text{MHz}$
Reverse Recovery Time	$t_{rr}$	—	5.0	ns	$I_F = I_R = 10\text{mA}$ , $t_{rr} = 0.1 \times I_R$ , $R_L = 100\Omega$

- Notes: 1. Valid provided that terminals are kept at ambient temperature.  
 2. Test period  $< 3000\mu\text{s}$ .



# RECTRON

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## Typical Characteristics

B AS40W-04-05-06

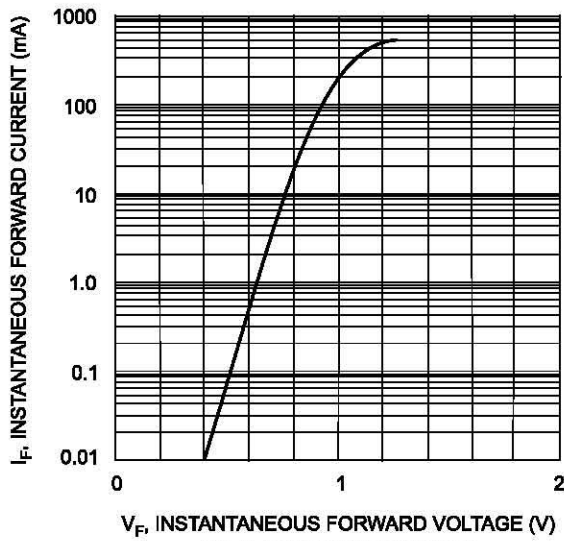


Fig. 1 Forward Characteristics

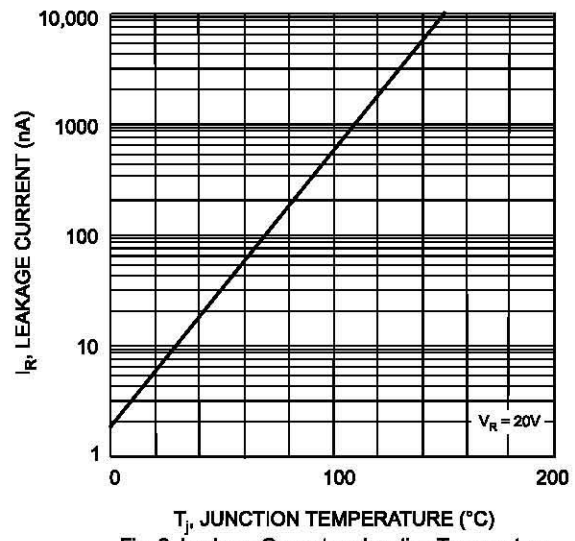


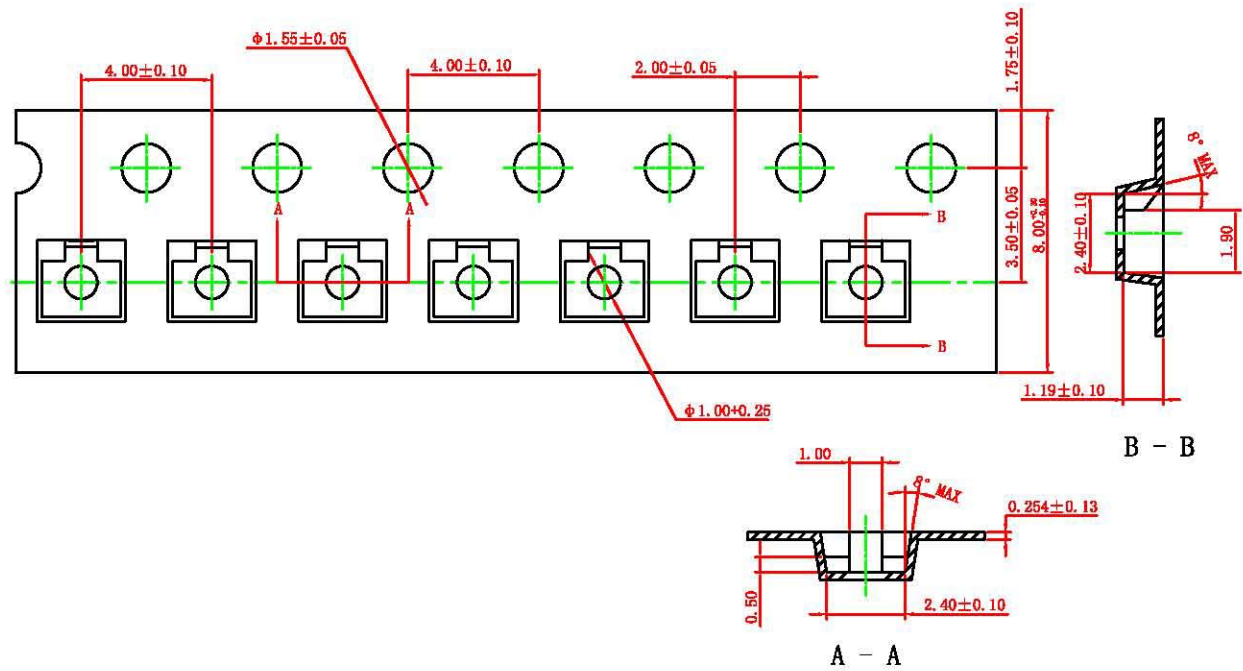
Fig. 2 Leakage Current vs Junction Temperature



# RECTRON

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SOT-323

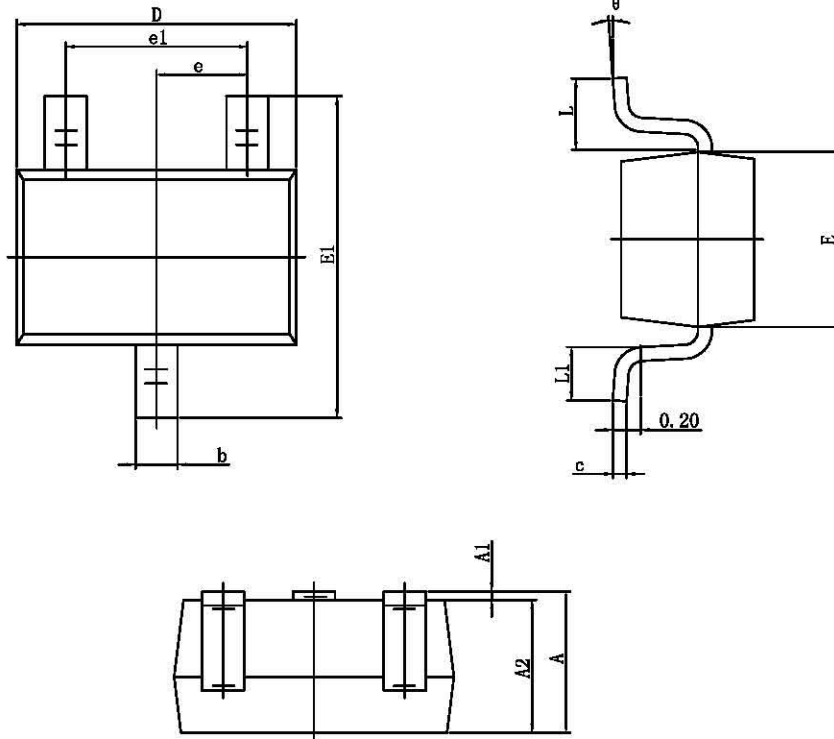




# RECTRON

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## SOT-323 PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.200	0.400	0.008	0.016
c	0.080	0.100	0.003	0.004
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.450	0.085	0.096
e	0.650TYP		0.026TYP	
e1	1.200	1.400	0.047	0.055
L	0.525REF		0.021REF	
L1	0.260	0.460	0.010	0.018
f	0°	8°	0°	8°