

Features

- AEC-Q101 Qualified
- Halogen Free. "Green" Device (Note 1)
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

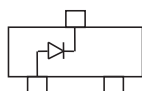
Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance: 625°C/W Junction to Ambient

MCC Part Number		Device Marking	
BAS19WTHE3		KA8	
BAS20WTHE3		KT2	
BAS21WTHE3		KT3	
Forward Continuous Current	I_F	200mA	
Power Dissipation	P_d	200mW	$T_A=25^\circ\text{C}$

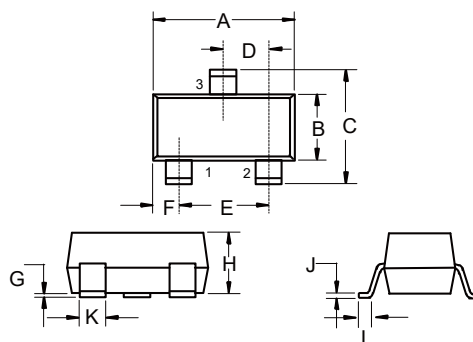
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

Internal Structure:



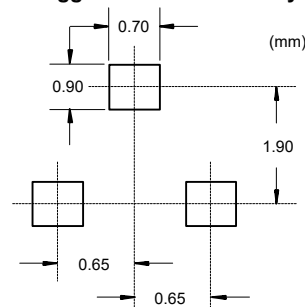
200mW Switching Diode

SOT-323



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.071	0.087	1.80	2.20	
B	0.045	0.053	1.15	1.35	
C	0.083	0.096	2.10	2.45	
D	0.026		0.65		TYP.
E	0.047	0.055	1.20	1.40	
F	0.012	0.016	0.30	0.40	
G	0.000	0.004	0.00	0.10	
H	0.035	0.044	0.90	1.10	
J	0.002	0.010	0.05	0.25	
K	0.006	0.016	0.15	0.40	
L	0.010	0.018	0.26	0.46	

Suggested Solder Pad Layout



Electrical Characteristics @ 25°C Unless Otherwise Specified

Reverse Breakdown Voltage BAS19WTHE3 BAS20WTHE3 BAS21WTHE3	V_R	100V 150V 200V	$I_R=100.0\mu A$
Maximum Forward Voltage	V_F	1.000V 1.250V	$I_{FM}=100.0mA$ $I_{FM}=200.0mA$
Maximum DC Reverse Current At Rated DC Blocking Voltage BAS19WTHE3 BAS20WTHE3 BAS21WTHE3	I_R	0.1 μA	$V_R=100V$ $V_R=150V$ $V_R=200V$
Diode Capacitance	C_d	5.0pF	$V_R=0.0V, f=1.0MHz$
Reverse Recovery Time	t_{rr}	50.0ns	$I_F=30mA, I_R=30mA$ $I_{rr}=0.1*I_R$

Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

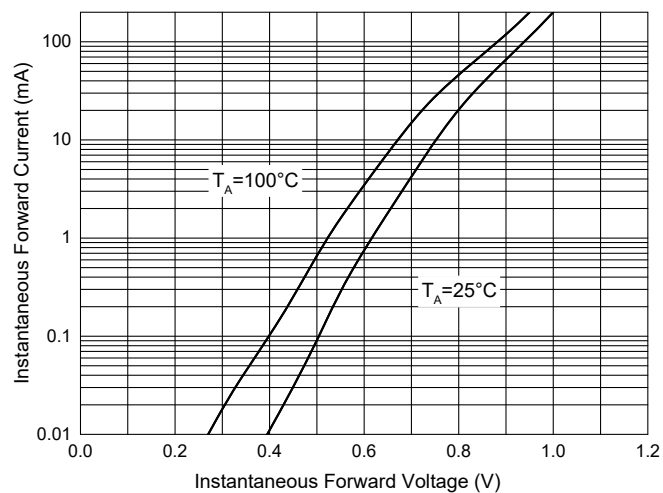


Fig. 2 - Typical Reverse Leakage Characteristics

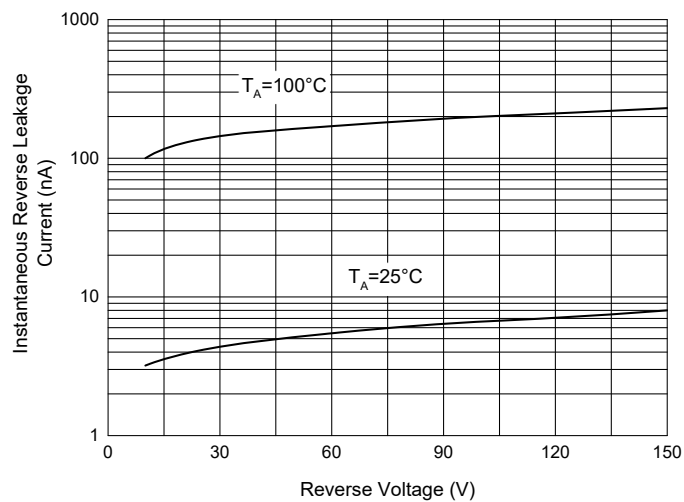
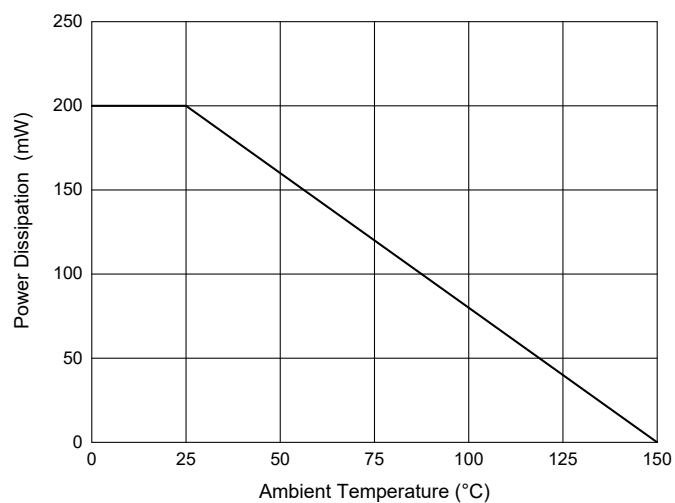


Fig. 3 - Power Derating Curve



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

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