

**Features**

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

**Maximum Ratings**

- Operating Junction Temperature Range: -55°C to +125°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance: 500°C /W Junction to Ambient

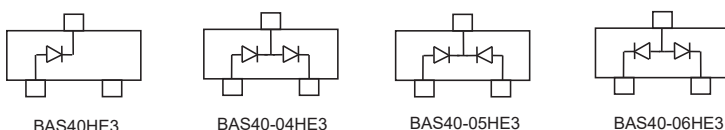
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum DC Blocking Voltage
BAS40HE3	43	40V	40V
BAS40-04HE3	44	40V	40V
BAS40-05HE3	45	40V	40V
BAS40-06HE3	46	40V	40V

**Electrical Characteristics @ 25°C Unless Otherwise Specified**

Average Forward Current	$I_{F(AV)}$	200mA	25°C
Peak Forward Surge Current	$I_{FSM}$	600mA	$t_p < 1s, T_a = 25^\circ C$
Power Dissipation	$P_d$	200mW	$T_A = 25^\circ C$
Maximum Forward Voltage	$V_F$	380mV 1000mV	$I_F = 1.0mA$ $I_F = 40mA$
DC Reverse Current at Rated DC Blocking Voltage	$I_R$	10 nA(TYP) 200nA(MAX)	$t_p < 300\mu s, V_R = 30V$
Min Reverse Breakdown Voltage	$V_{BR}$	40V	$I_R = 10\mu A$
Typical Junction Capacitance	$C_T$	5pF	Measured at 1.0MHz, $V_R = 0.0V$
Maximum Reverse Recovery Time	$t_{rr}$	5.0ns	$I_{rr} = 1mA, I_R = I_F = 10mA$ $R_L = 100\Omega$

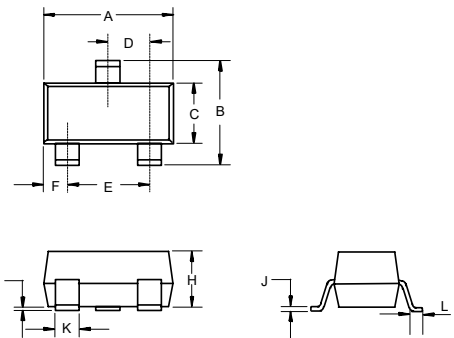
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

**Internal Structure:**



**200mW, 40V  
Schottky Barrier  
Diode**

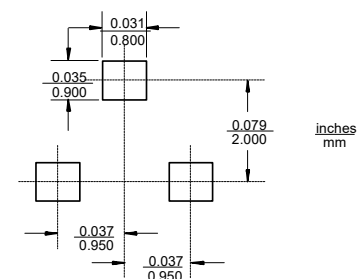
**SOT-23**



**DIMENSIONS**

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.110	0.120	2.80	3.04	
B	0.083	0.104	2.10	2.64	
C	0.047	0.055	1.20	1.40	
D	0.034	0.041	0.85	1.05	
E	0.067	0.083	1.70	2.10	
F	0.018	0.024	0.45	0.60	
G	0.0004	0.006	0.01	0.15	
H	0.035	0.043	0.90	1.10	
J	0.003	0.007	0.08	0.18	
K	0.012	0.020	0.30	0.51	
L	0.007	0.020	0.20	0.50	

**Suggested Solder Pad Layout**



## Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

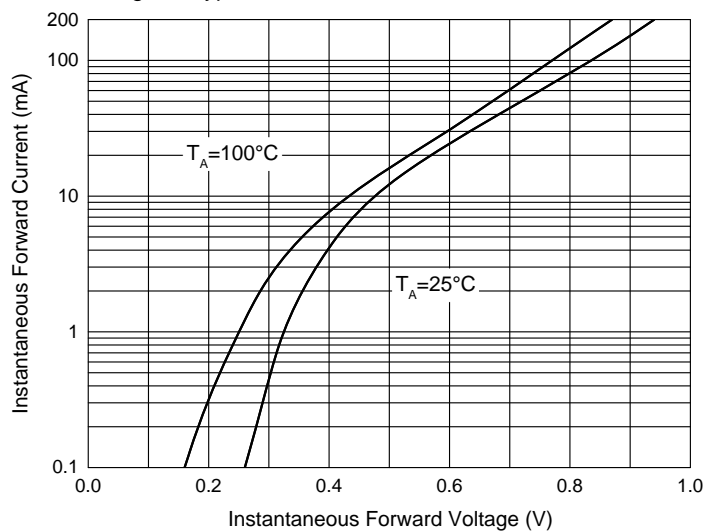


Fig. 2 - Typical Reverse Leakage Characteristics

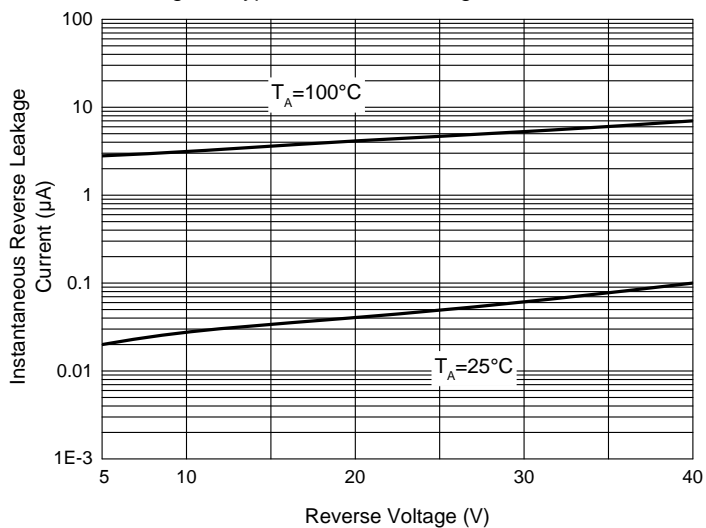
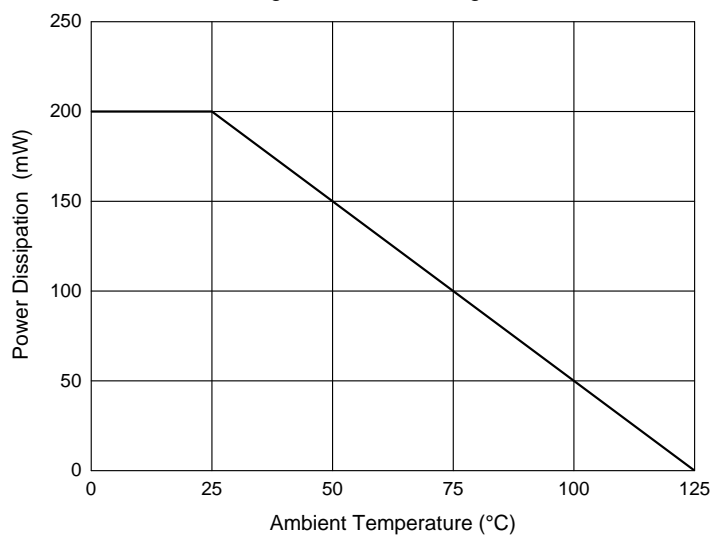


Fig. 3 - Power Derating Curve



## Ordering Information

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

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