

Features

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

Maximum Ratings

- Operating Junction Temperature Range: -65°C to +125°C
- Storage Temperature Range: -65°C to +150°C
- Thermal Resistance: 667°C/W Junction to Ambient

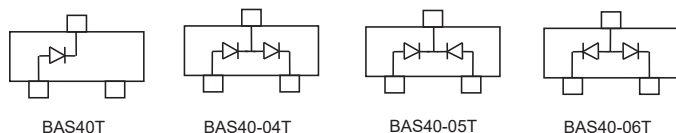
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum DC Blocking Voltage
BAS40T	43	40V	40V
BAS40-04T	44	40V	40V
BAS40-05T	45	40V	40V
BAS40-06T	46	40V	40V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	200mA	
Power Dissipation	P_d	150mW	$T_A = 25^\circ\text{C}$
Maximum Forward Voltage	V_F	380mV 1000mV	$I_F = 1.0\text{mA}$ $I_F = 40\text{mA}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	0.2μA	$V_R = 30\text{V}$
Reverse Breakdown Voltage	$V_{(BR)}$	40V	$I_R = 10\mu\text{A}$
Total Capacitance	C_T	5.0pF	Measured at 1.0MHz, $V_R = 0\text{V}$
Reverse Recovery Time	t_{rr}	5.0ns	$I_F = I_R = 10\text{mA}$, $I_{rr} = 1\text{mA}$, $R_L = 100\Omega$

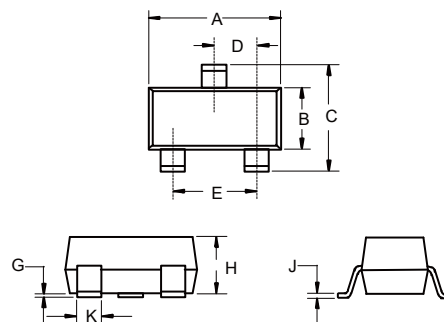
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

Internal Structure:



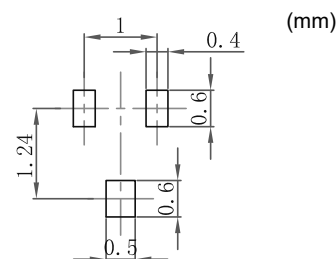
150mW, 40V Schottky Barrier Diode

SOT-523



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.059	0.067	1.50	1.70	
B	0.030	0.033	0.75	0.85	
C	0.057	0.069	1.45	1.75	
D	0.020	Nominal	0.50	Nominal	
E	0.035	0.043	0.90	1.10	
G	0.000	0.004	0.00	0.10	
H	0.024	0.031	0.60	0.80	
J	0.004	0.008	0.10	0.20	
K	0.006	0.014	0.15	0.35	

Suggested Solder Pad Layout



Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

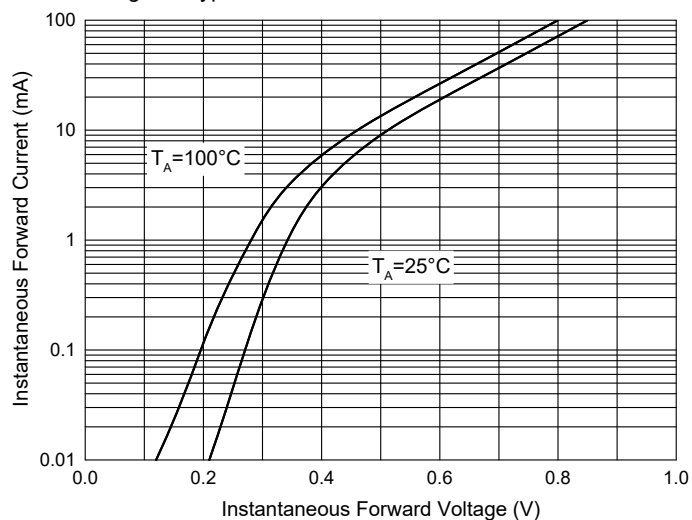


Fig. 2 - Typical Reverse Leakage Characteristics

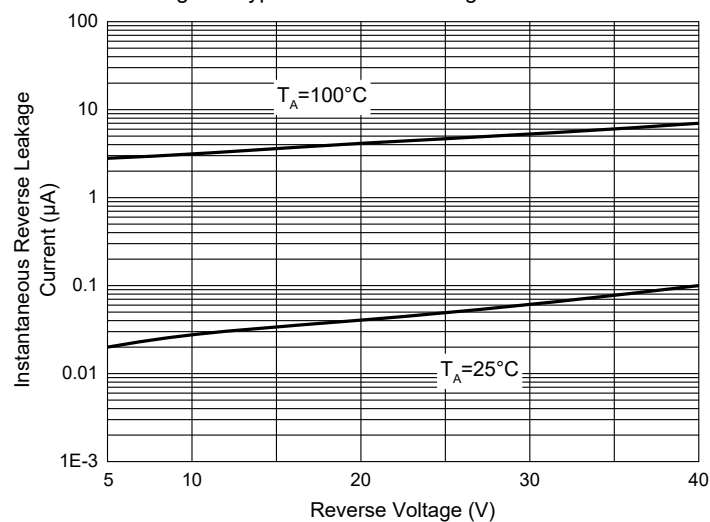
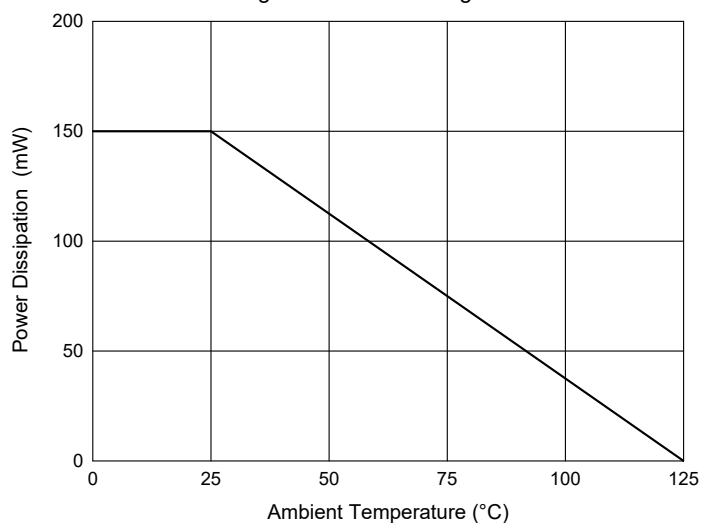


Fig. 3 - Power Derating Curve



Ordering Information

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

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