350mW,40V Schottky Barrier Diode

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 +150°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance(Note 2）: 357°C /W Junction to Ambient

MCC Part Number	Repetitive Peak Reverse Voltage V_{RRM}	RMS Reverse Voltage $V_{R(RMS)}$	DC Blocking Voltage V_R
BAS40HE3	40V	28V	40V
BAS40-04HE3	40V	28V	40V
BAS40-05HE3	40V	28V	40V
BAS40-06HE3	40V	28V	40V

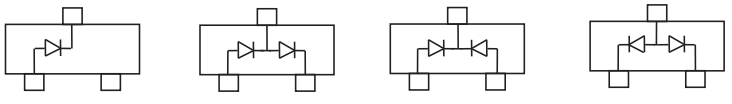
Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	200mA	T_A= 25 °C
Peak Forward Surge Current	I_{FSM}	600mA	t_p<1s, T_A=25°C
Power Dissipation	P_d	350mW	T_A= 25 °C

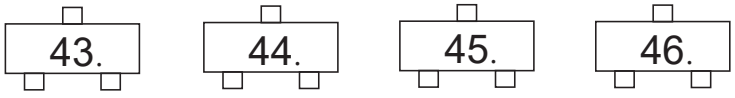
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

2. Part mounted on FR-4 board with recommended pad layout.

Internal Structure and Marking Code

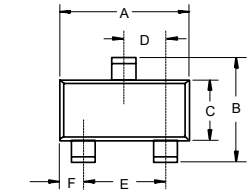


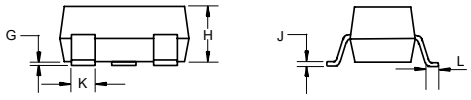
BAS40HE3 BAS40-04HE3 BAS40-05HE3 BAS40-06HE3



BAS40HE3 BAS40-04HE3 BAS40-05HE3 BAS40-06HE3

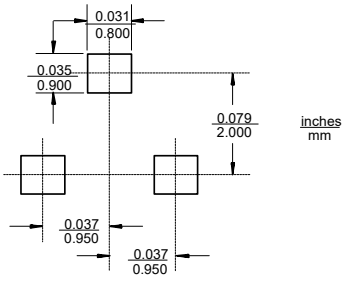
SOT-23





DIM	INCHES MIN	INCHES MAX	MM MIN	MM MAX	NOTE
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



Electrical Characteristics @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Breakdown Voltage	V_{BR}	I_R=10μA	40			V
Forward Voltage	V_F	I_F=1mA			0.38	V
		I_F=40mA			1	V
Reverse Current	I_R	V_R=30V			200	nA
Junction Capacitance	C_J	V_R = 0V, f = 1MHz			5	pF
Reverse Recovery Time	t_{rr}	I_F=I_R=10mA, I_{rr}=0.1×I_R,R_L=100Ω			5	ns

Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

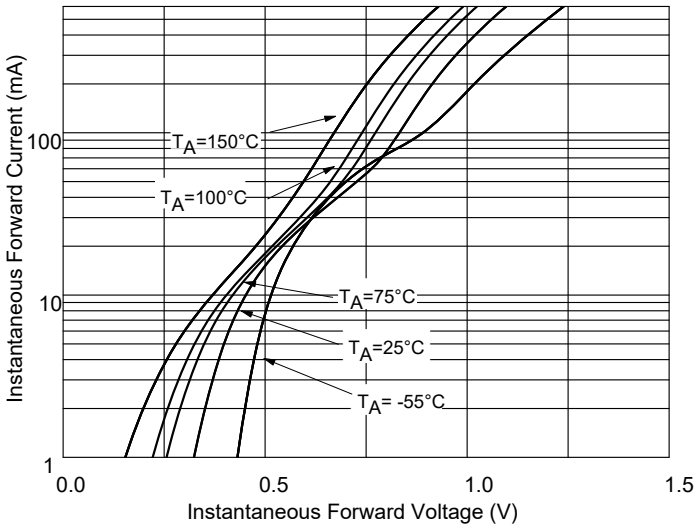


Fig. 2 - Typical Reverse Leakage Characteristics

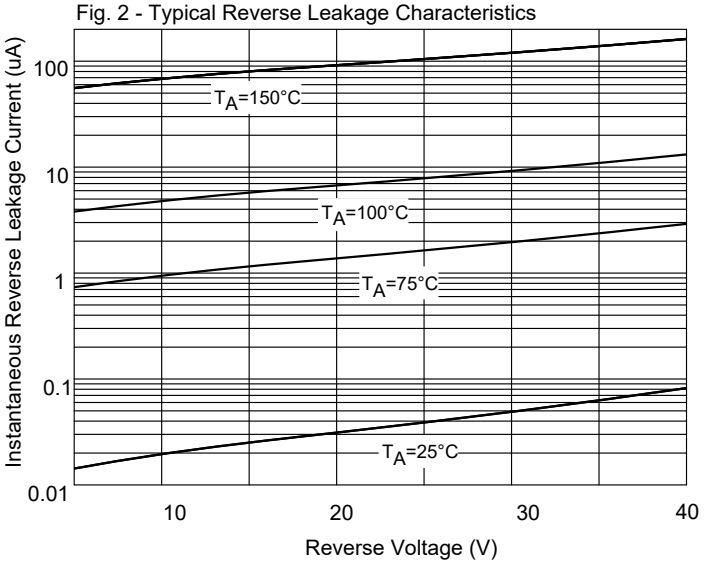


Fig. 3 - Capacitance Characteristics

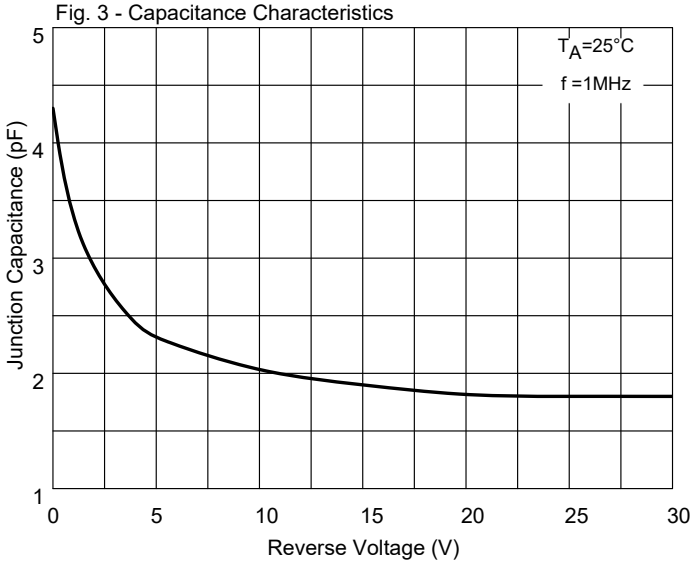
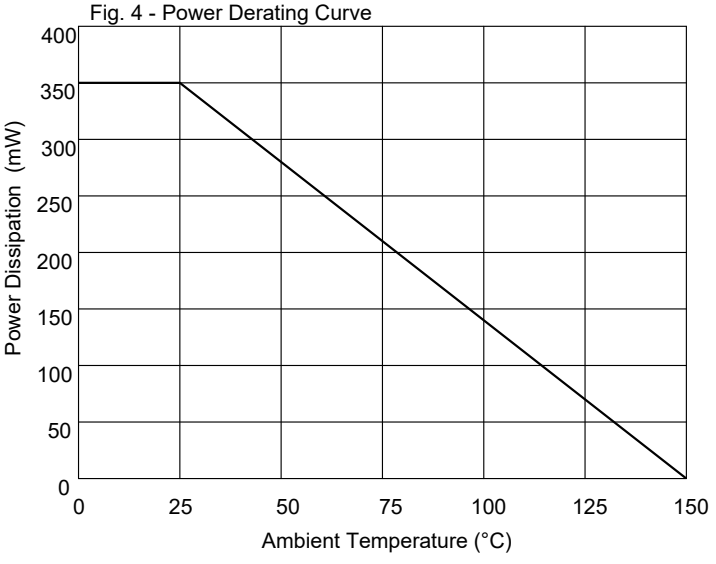


Fig. 4 - Power Derating Curve



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel
Part Number-13P	Tape&Reel: 10Kpcs/Reel

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