

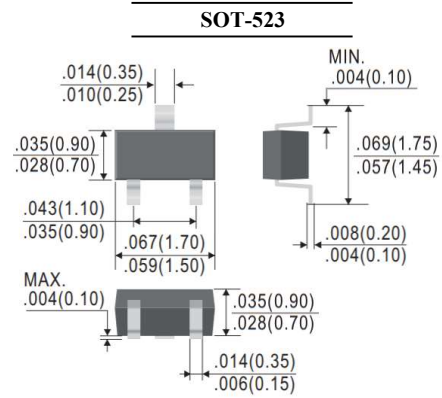
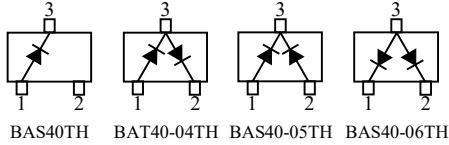


BAS40TH / -04TH / -05TH / -06TH

SCHOTTKY DIODES

FEATURES

- Low forward voltage
- Fast switching
- Suffix "H" indicates Halogen-free parts, ex. BAS40TH



Dimension in inches and (millimeters)

Maximum Ratings ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	40	V
DC Blocking Voltage	V_R	40	V
Average Rectified Forward Current	I_F	200	mA
Peak Forward Surge Current	I_{FSM}	600	mA
Power Dissipation	P_D	150	mW
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-65 to +150	$^\circ\text{C}$

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

Parameter	Conditions	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage	$I_R = 10\mu\text{A}$	$V_{(BR)R}$	40	-	V
Forward Voltage	$I_F = 1\text{mA}$	V_F	-	0.38	V
	$I_F = 40\text{mA}$		-	1.00	
Reverse Current	$V_R = 30\text{V}$	I_R	-	200	nA
Junction Capacitance	$V_R = 0\text{V}$, $f = 1\text{MHz}$	C_J	-	5	pF
Reverse Recovery Time	$I_F = I_R = 10\text{mA}$, $I_{tr} = 0.1I_R$	t_{rr}	-	5	ns



BAS40TH / -04TH / -05TH / -06TH SCHOTTKY DIODES

RATINGS AND CHARACTERISTIC CURVES

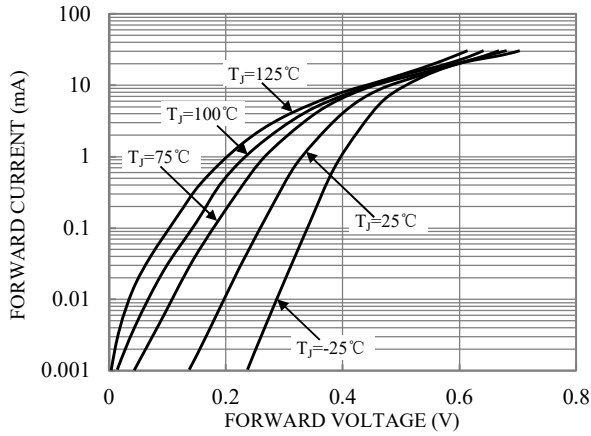


Fig. 1-FORWARD CHARACTERISTICS CURVE

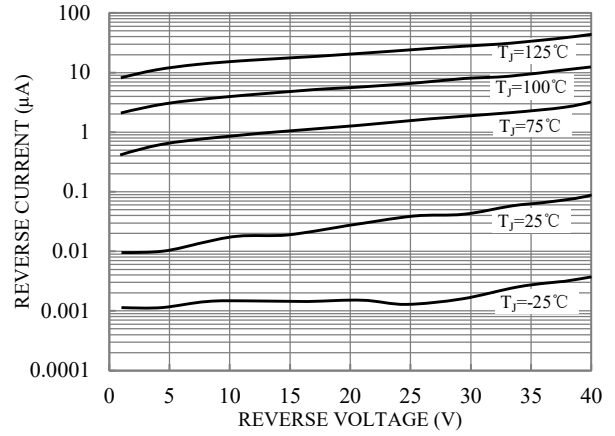


Fig. 2-REVERSE CHARACTERISTICS CURVE

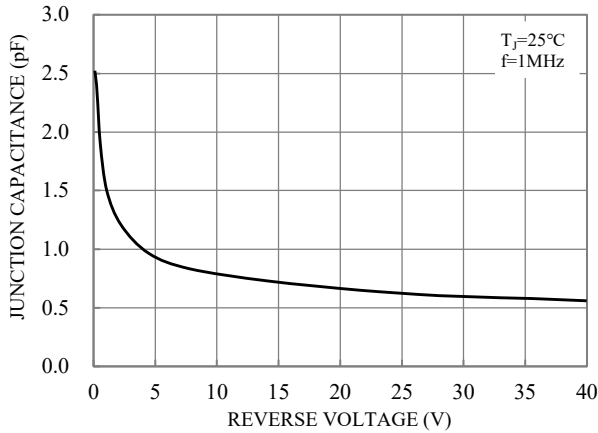


Fig. 3-JUNCTION CAPACITANCE

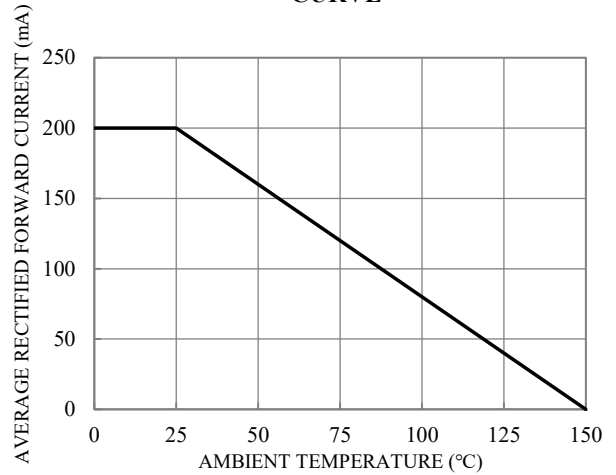
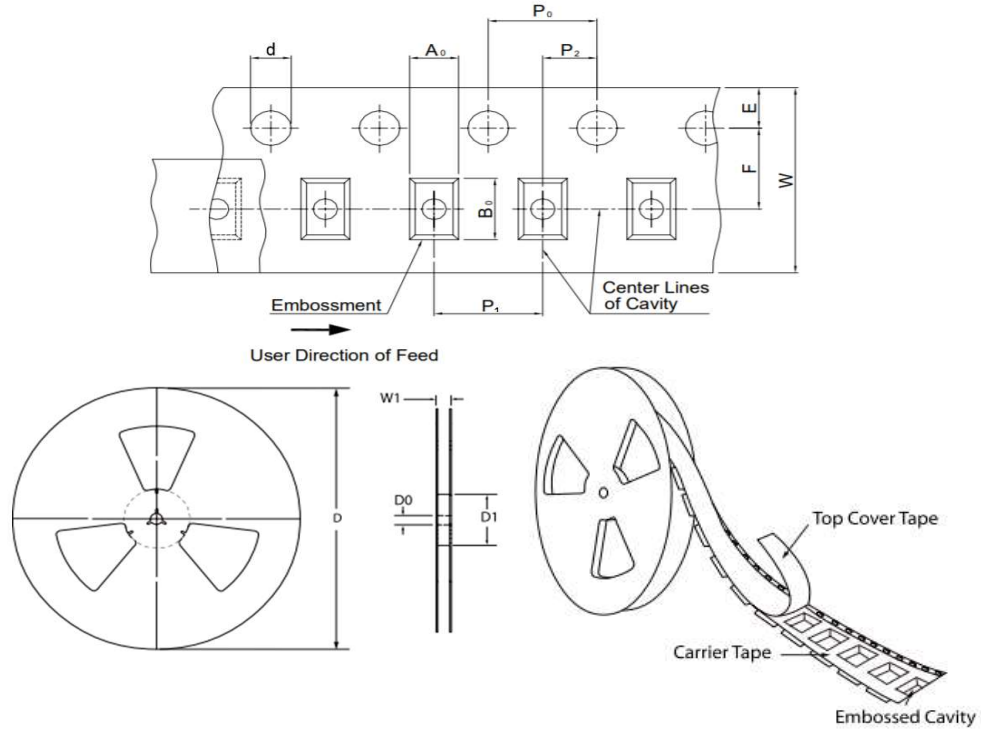


Fig. 4-AVERAGE RECTIFIED FORWARD CURRENT DERATING CURVE



BAS40TH / -04TH / -05TH / -06TH SCHOTTKY DIODES

TAPE & REEL SPECIFICATION



Item	Symbol	SOT-523
Carrier width	A_0	*
Carrier length	B_0	
Carrier depth	K_0	
Sprocket hole	d	1.50 ± 0.10
Reel outside diameter	D	178.00 ± 2.00
Feed hole width	D_0	13.00 ± 0.50
Reel inner diameter	D_1	MIN. 50.00
Sprocket hole position	E	1.75 ± 0.10
Punch hole position	F	3.50 ± 0.10
Sprocket hole pitch	P_0	4.00 ± 0.10
Punch hole pitch	P_1	4.00 ± 0.10
Embossment center	P_2	2.00 ± 0.10
Overall tape thickness	T	MAX. 0.60
Tape width	W	8.00 ± 0.20
Reel width	W_1	MAX. 10.00

Note *: A_0 , B_0 , and K_0 are determined by component size. The clearance between the components and the cavity must be within 0.05 mm min. to 0.5 mm max.

ORDER INFORMATION

Package	Reel Size	Quantity
SOT-523	7"	4,000

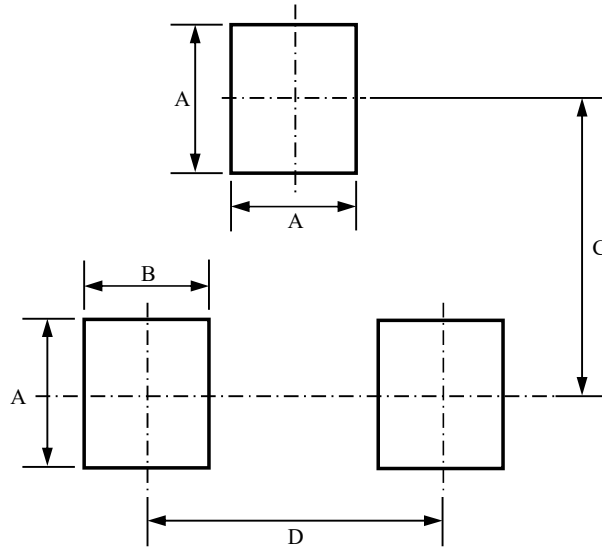
MARKING CODE

Part Number	Marking Code
BAS40TH	43
BAS40-04TH	44
BAS40-05TH	45
BAS40-06TH	46



BAS40TH / -04TH / -05TH / -06TH SCHOTTKY DIODES

SUGGESTED SOLDER PAD LAYOUT



Unit :mm

PACKAGE	A	B	C	D
SOT-523	0.70	0.60	1.30	1.00