

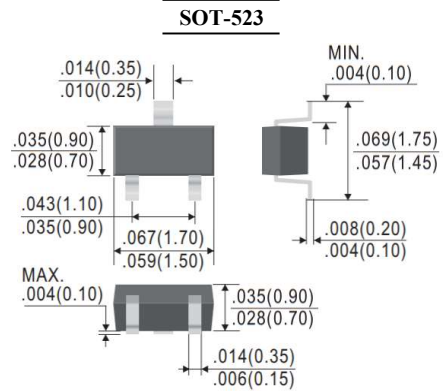
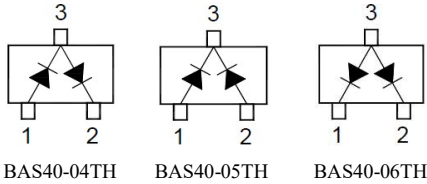


# BAS40-04TH / BAS40-05TH / BAS40-06TH

## SCHOTTKY DIODE

### FEATURES

- Low forward voltage
- Fast switching
- Suffix "H" indicates Halogen-free parts, ex. BAS40-04TH



Dimension in inches and (millimeters)

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

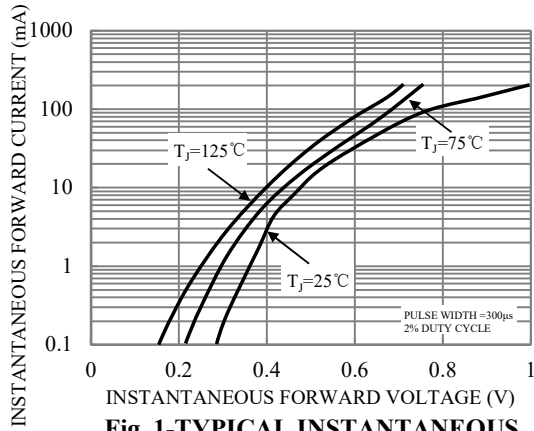
Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$	40	V
Reverse Voltage	$V_R$	40	V
Forward Continuous Current	$I_F$	200	mA
Peak Forward Surge Current	$I_{FSM}$	600	mA
Power Dissipation	$P_D$	150	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55 to +150	$^\circ\text{C}$

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

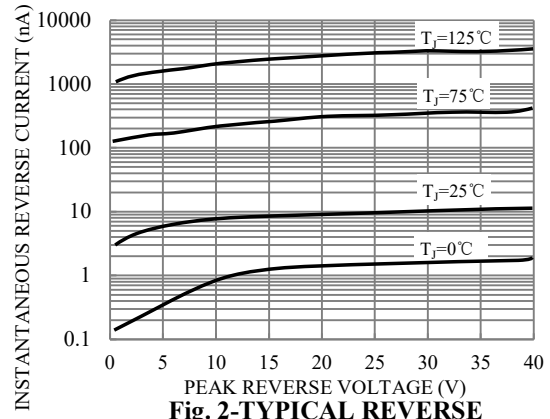
Parameter	Conditions	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage	$I_R = 10\mu\text{A}$	$V_{(BR)R}$	40	-	V
Forward Voltage	$I_F = 1\text{mA}$	$V_F$	-	0.38	V
	$I_F = 40\text{mA}$		-	1.00	
Reverse Current	$V_R = 30\text{V}$ , $T_j = 25^\circ\text{C}$	$I_R$	-	200	nA
Total Capacitance	$V_R = 0\text{V}$ , $f = 1\text{MHz}$	$C_T$	-	5	pF
Reverse Recovery Time	$I_F = I_R = 10\text{mA}$ to $I_F = 0.1I_R$	$t_{rr}$	-	5	ns



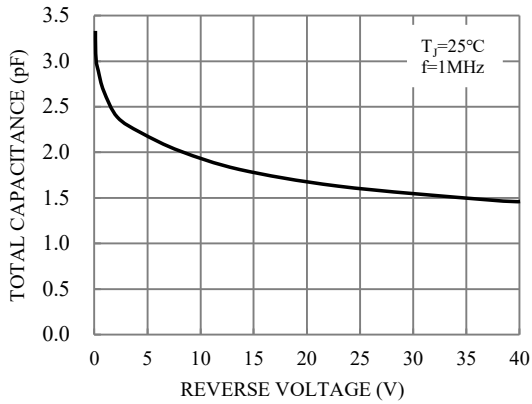
### RATINGS AND CHARACTERISTIC CURVES



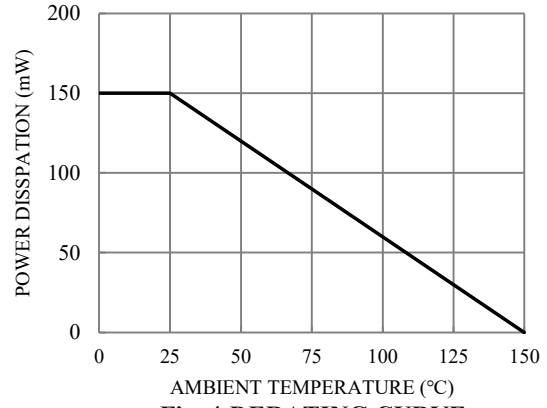
**Fig. 1-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**Fig. 2-TYPICAL REVERSE CHARACTERISTICS**



**Fig. 3-TYPICAL TOTAL CAPACITANCE**

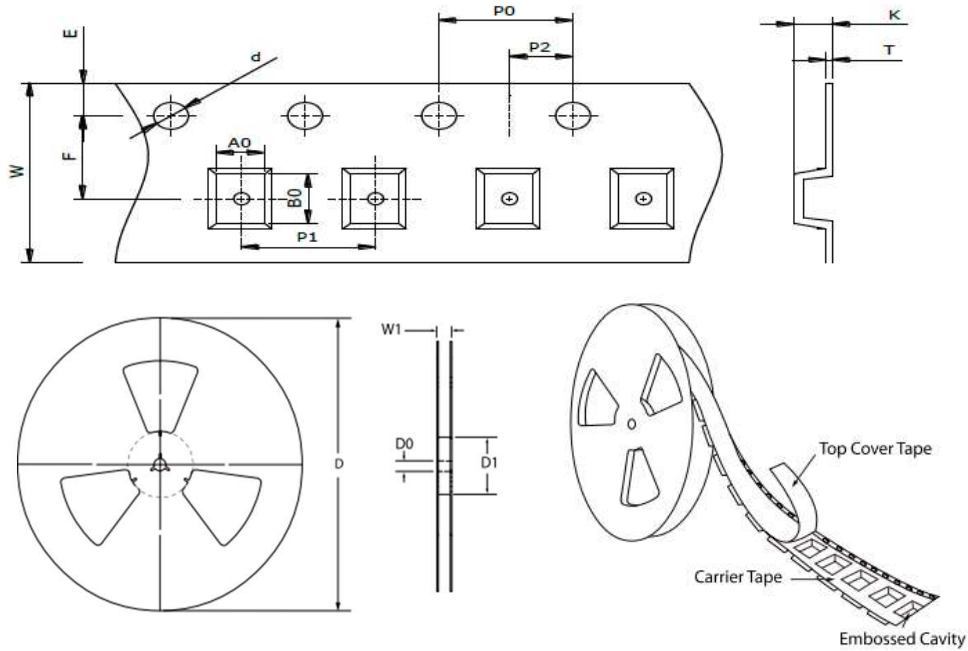


**Fig. 4-DERATING CURVE**



# BAS40-04TH / BAS40-05TH / BAS40-06TH SCHOTTKY DIODE

## TAPE & REEL SPECIFICATION



Item	Symbol	SOT-523
Carrier width	A <sub>0</sub>	1.85 ± 0.10
Carrier length	B <sub>0</sub>	1.85 ± 0.10
Carrier depth	K	1.05 ± 0.10
Sprocket hole	d	1.50 ± 0.10
Reel outside diameter	D	178.00 ± 2.00
Feed hole width	D <sub>0</sub>	13.00 ± 0.50
Reel inner diameter	D <sub>1</sub>	MIN. 50.00
Sprocket hole position	E	1.75 ± 0.10
Punch hole position	F	3.50 ± 0.10
Sprocket hole pitch	P <sub>0</sub>	4.00 ± 0.10
Punch hole pitch	P <sub>1</sub>	4.00 ± 0.10
Embossment center	P <sub>2</sub>	2.00 ± 0.10
Overall tape thickness	T	MAX. 0.60
Tape width	W	8.00 ± 0.20
Reel width	W <sub>1</sub>	MAX. 10.00

## ORDER INFORMATION

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

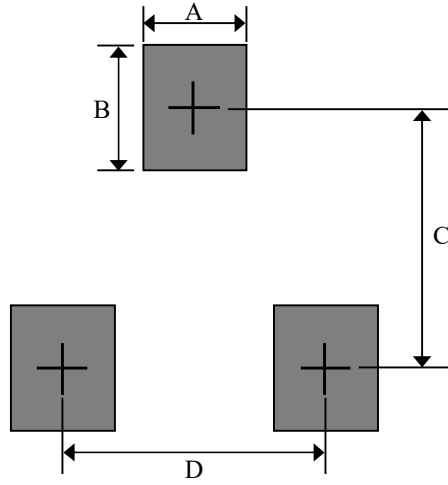
## MARKING CODE

Part Number	Marking Code
BAS40-04H	44
BAS40-05H	45
BAS40-06H	46



# BAS40-04TH / BAS40-05TH / BAS40-06TH SCHOTTKY DIODE

## SUGGESTED SOLDER PAD LAYOUT



Unit : mm

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