

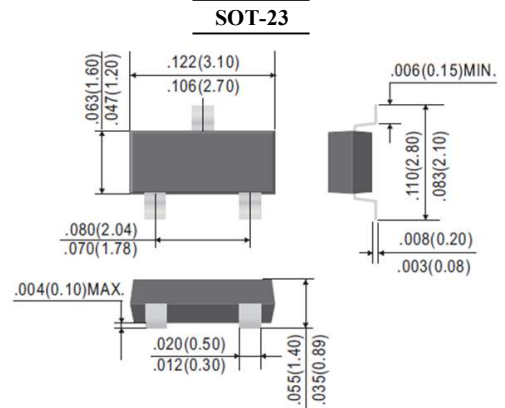
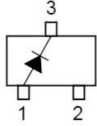


BAS116H

SWITCHING DIODE

FEATURES

- Low leakage switching diode
- Suffix "H" indicates Halogen-free parts, ex. BAS116H.



Dimensions in inch and (millimeter)

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

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	85	V
Reverse voltage	V_R	75	V
Continuous Forward Current	I_F	215	mA
Repetitive Peak Forward Current	I_{FRM}	500	mA
Non-Repetitive Peak Forward Surge Current	I_{FSM}	$t=1\mu\text{s}$	4.0
		$t=1\text{ms}$	1.0
		$t=1\text{s}$	0.5
Total Power Dissipation	P_{tot}	250	mW
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to +150	$^\circ\text{C}$

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

Parameter	Conditions	Symbol	Typ.	Max.	Unit
Forward voltage	$I_F=1\text{mA}$	V_F	-	900	mV
	$I_F=10\text{mA}$		-	1000	
	$I_F=50\text{mA}$		-	1100	
	$I_F=150\text{mA}$		-	1250	
Reverse Current	$V_R=75\text{V}$	I_R	-	5	nA
	$V_R=75\text{V}, T_J=150^\circ\text{C}$		-	80	nA
Diode Capacitance	$V_R=0\text{V}, f=1\text{MHz}$	C_d	2	-	pF
Reverse recovery time	$I_F=I_R=10\text{mA}, I_{tr}=0.1I_R, R_L=100\Omega$	t_{rr}	-	3	μs



BAS116H

SWITCHING DIODE

RATINGS AND CHARACTERISTIC CURVES

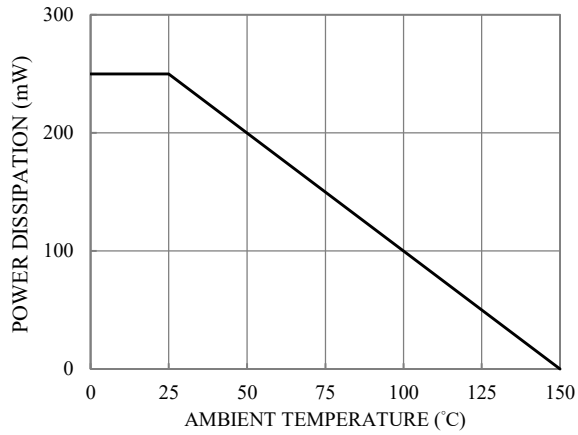


Fig.1-POWER DERATING CURVE

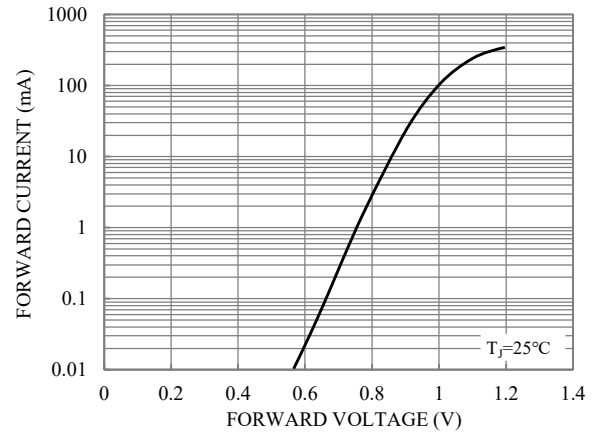


Fig.2-TYPICAL FORWARD CHARACTERISTICS

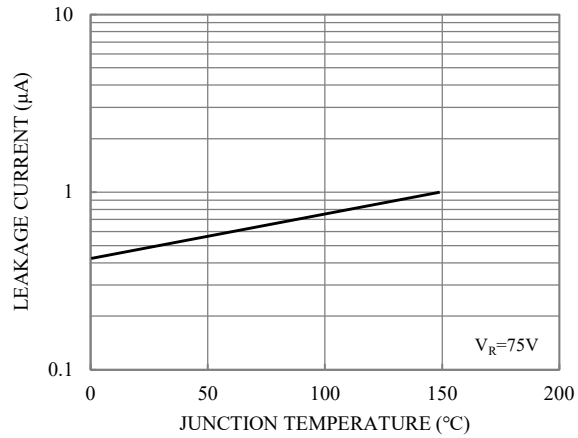


Fig.3-LEAKAGE CURRENT vs. JUNCTION TEMPERATURE

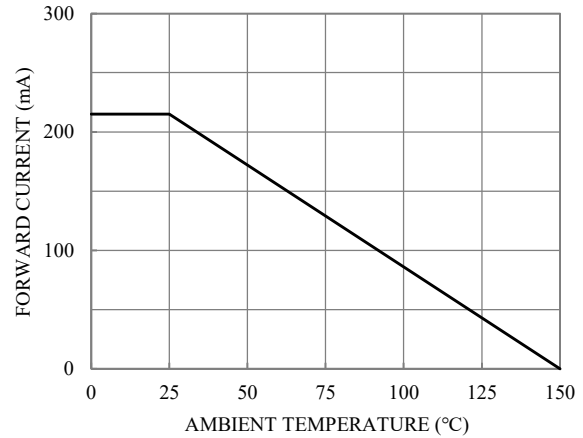


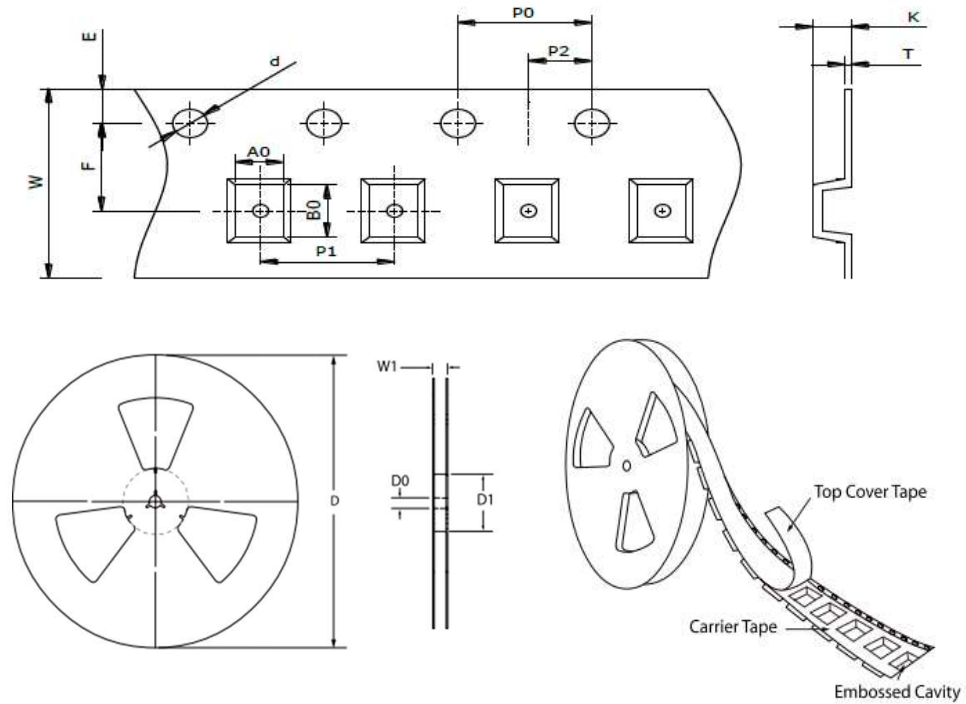
Fig.4-CURRENT DERATING CURVE



BAS116H

SWITCHING DIODE

TAPE & REEL SPECIFICATION



Item	Symbol	SOT-23
Carrier width	A ₀	3.30 ± 0.10
Carrier length	B ₀	3.00 ± 0.10
Carrier depth	K	1.70 ± 0.10
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	0.20 ± 0.05
Tape width	W	8.00 ± 0.20
Reel width	W1	MAX. 14.50

ORDER INFORMATION

Package	Reel Size	Quantity
SOT-23	7"	3,000

MARKING CODE

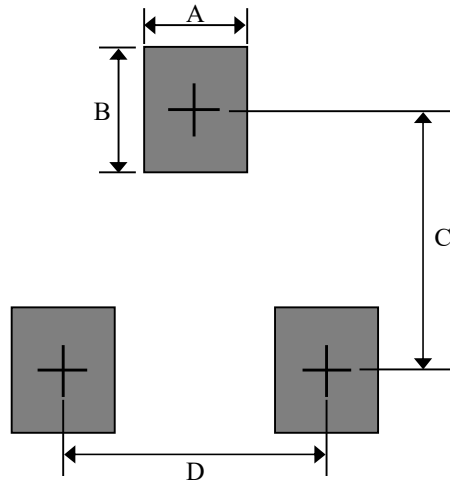
Part Number	Marking Code
BAS116H	JV



BAS116H

SWITCHING DIODE

SUGGESTED SOLDER PAD LAYOUT



Unit : mm

PACKAGE	A	B	C	D
SOT-23	0.80	1.00	2.40	1.90