

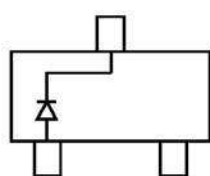
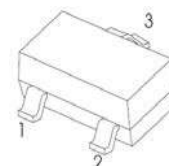
## SOT-23 Plastic-Encapsulate Diodes

SCHOTTKY BARRIER DIODE

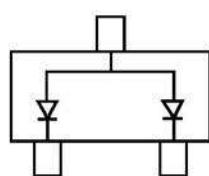
SOT-23

### Features:

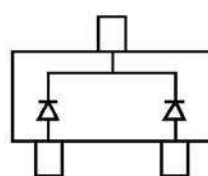
- Low Forward Voltage
- Fast Switching



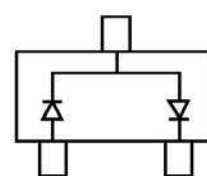
BAS40



BAS40-06

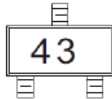
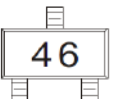
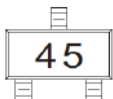



BAS40-05



BAS40-04

MARKING:

BAS40	BAS40-06	BAS40-05	BAS40-04
			

Solid dot = Green molding compound device, if none, the normal device.

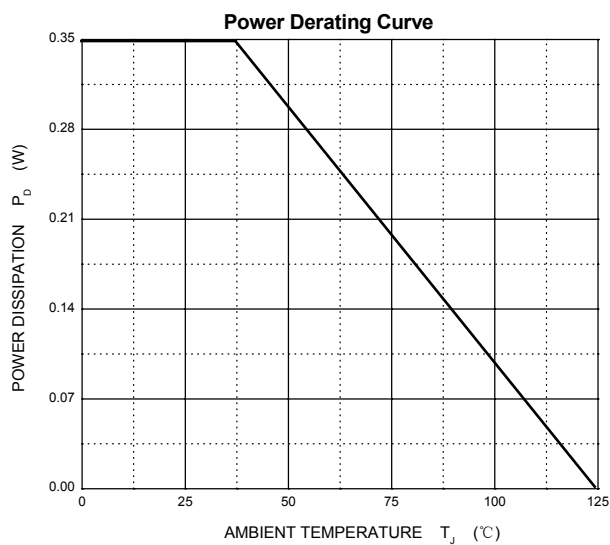
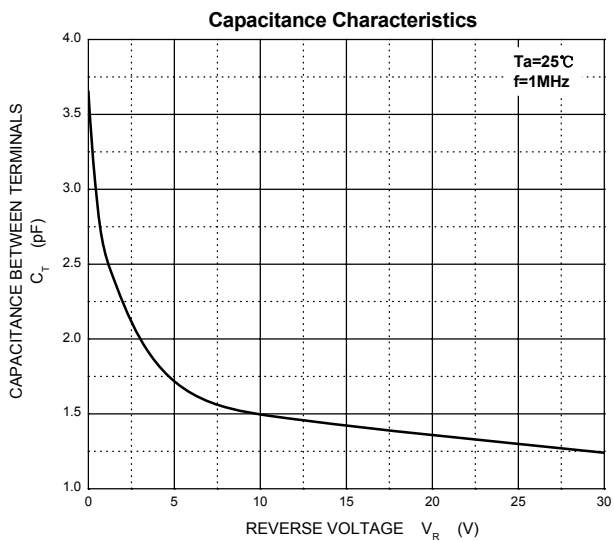
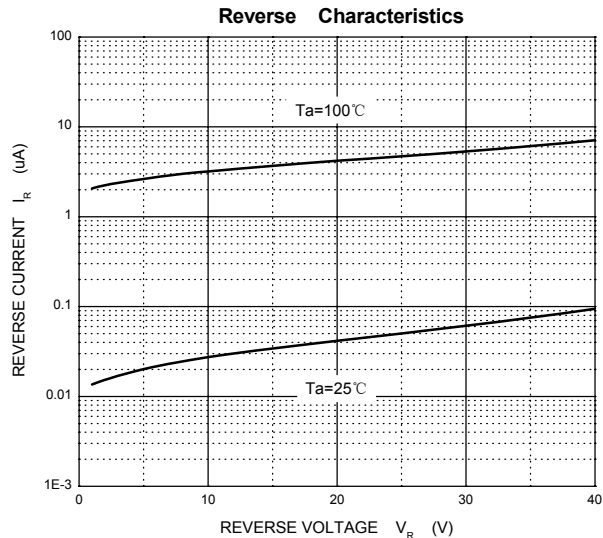
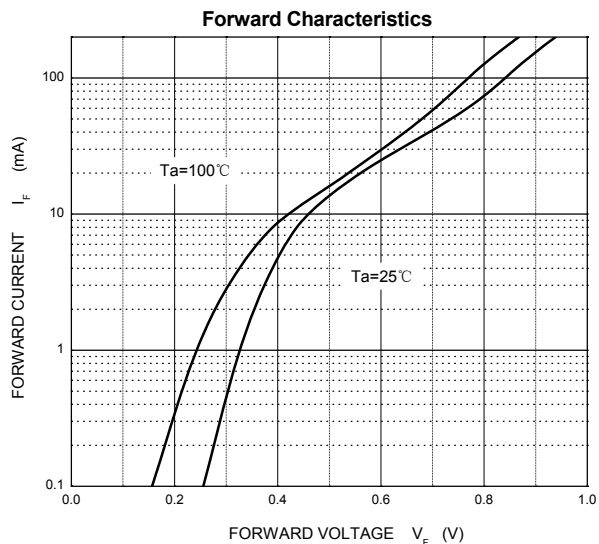
### Maximum Ratings @Ta=25°C

Parameter	Symbol	Limit	Unit
Peak Repetitive Peak Reverse Voltage	$V_{RRM}$	40	V
Working Peak Reverse Voltage	$V_{RWM}$		
DC Blocking Voltage	$V_R$		
Forward Continuous Current	$I_{FM}$	200	mA
Average Rectified Output Current	$I_O$	200	mA
Non-Repetitive Peak Forward Surge Current @ t = 8.3ms	$I_{FSM}$	0.6	A
Power Dissipation	$P_D$	350	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	360	°C/W
Operating Junction Temperature Range	$T_J$	-55 ~ +125	°C
Storage Temperature Range	$T_{STG}$	-55 ~ +150	°C

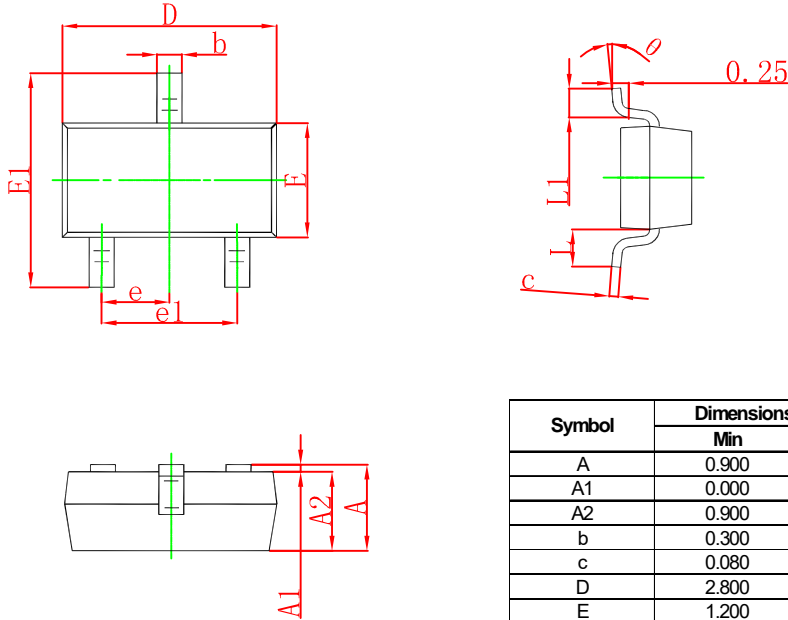
### ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	$I_R=10\mu A$	40		V
Reverse voltage leakage current	$I_R$	$V_R=30V$		200	nA
Forward voltage	$V_F$	$I_F=1mA$ $I_F=40mA$		380 1000	mV
Diode capacitance	$C_D$	$V_R=0, f=1MHz$		5	pF
Reverse recovery time	$t_{rr}$	$I_{rr}=1mA, I_R=I_F=10mA$ $R_L=100\Omega$		5	ns

### Typical Characteristics

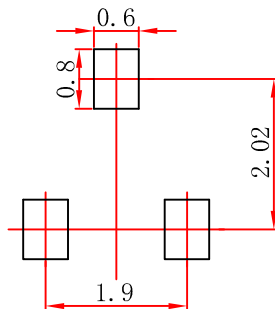


**SOT-23 Package Outline Dimensions**



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

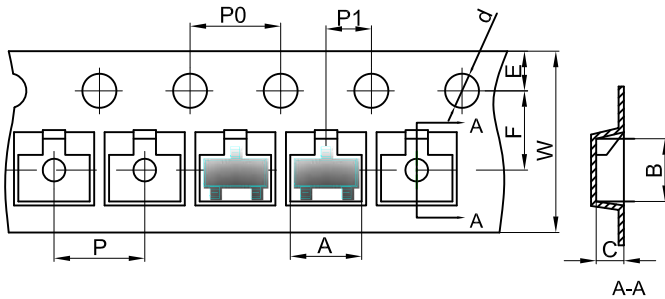
**SOT-23 Suggested Pad Layout**



Note:  
 1. Controlling dimension: in millimeters.  
 2. General tolerance:  $\pm 0.05\text{mm}$ .  
 3. The pad layout is for reference purposes only.

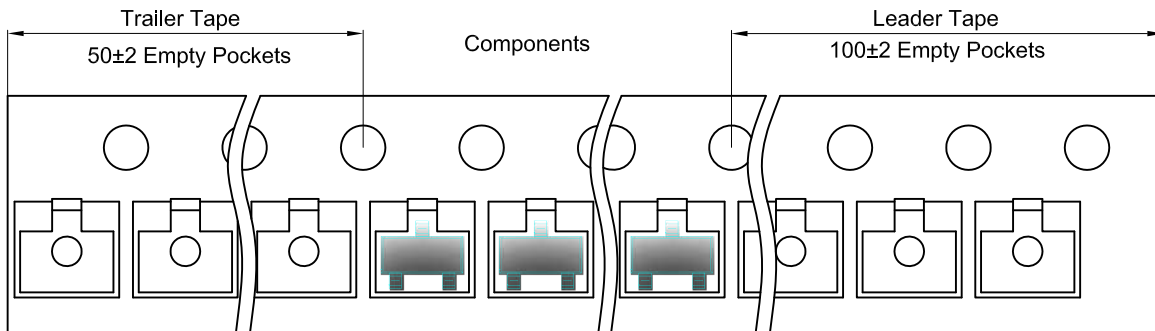
### SOT-23 Tape and Reel

#### SOT-23 Embossed Carrier Tape

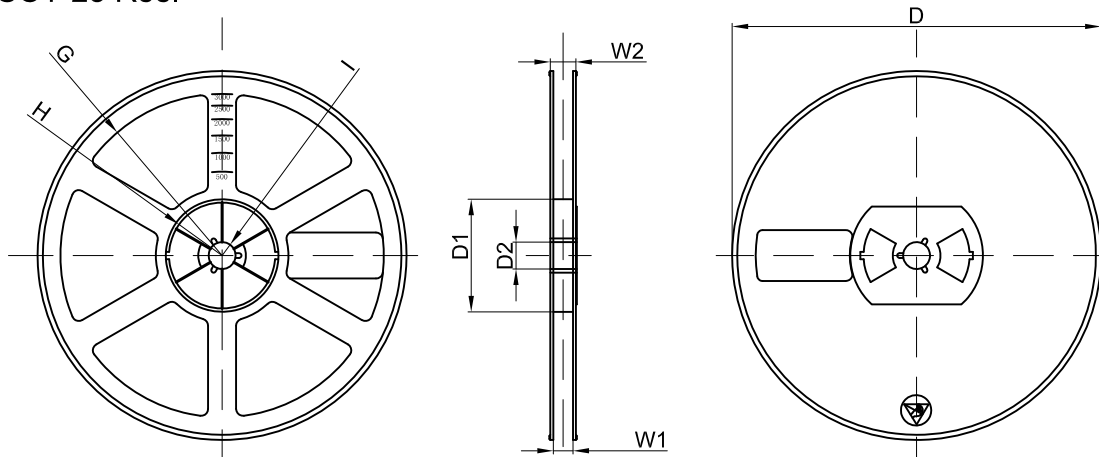


Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-23	3.15	2.77	1.22	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00

#### SOT-23 Tape Leader and Trailer



#### SOT-23 Reel



Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7" Dia	Ø178.00	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30

REEL	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)	G.W.(kg)
3000 pcs	7 inch	45,000 pcs	203×203×195	180,000 pcs	438×438×220	