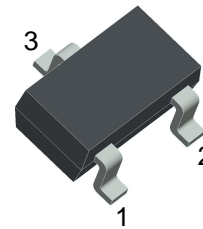
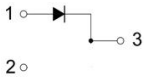
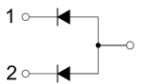
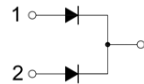
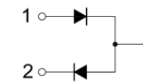


### Features

- Extremely Fast Switching Speed



### Marking

BAT54	BAT54A	BAT54C	BAT54S
			
MARKING: KL1	MARKING: KL2	MARKING: KL3	MARKING: KL4

SOT-23

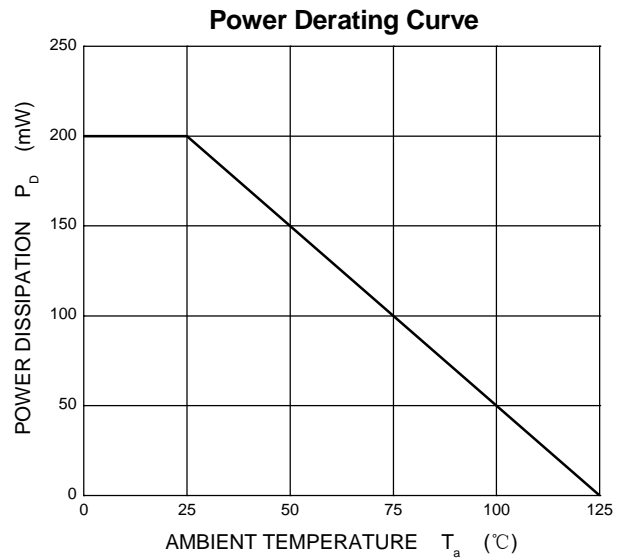
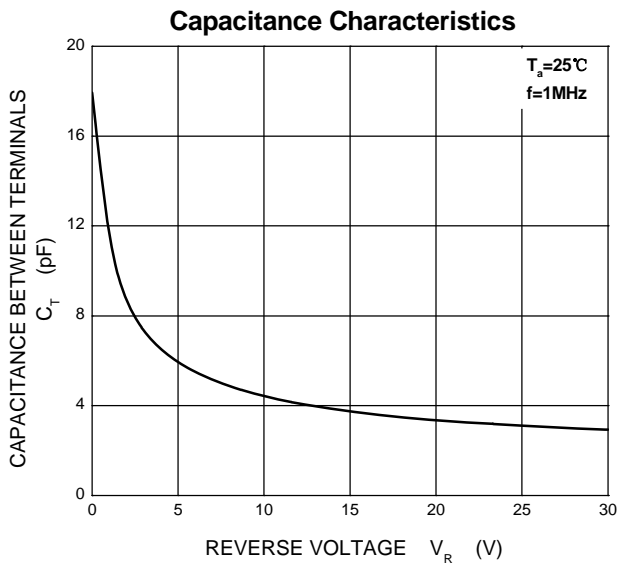
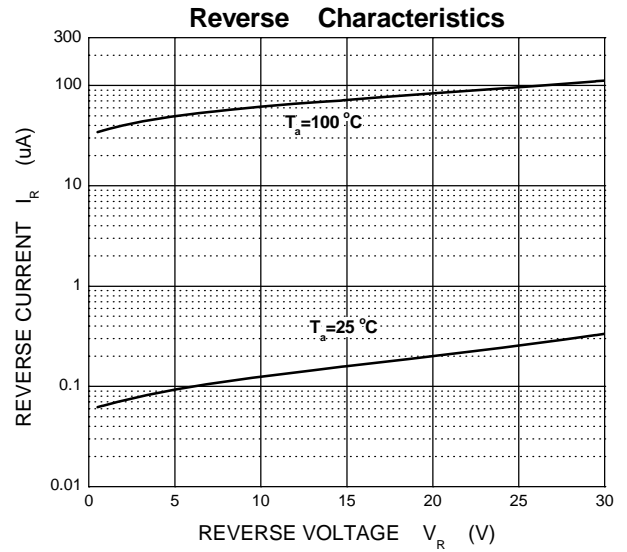
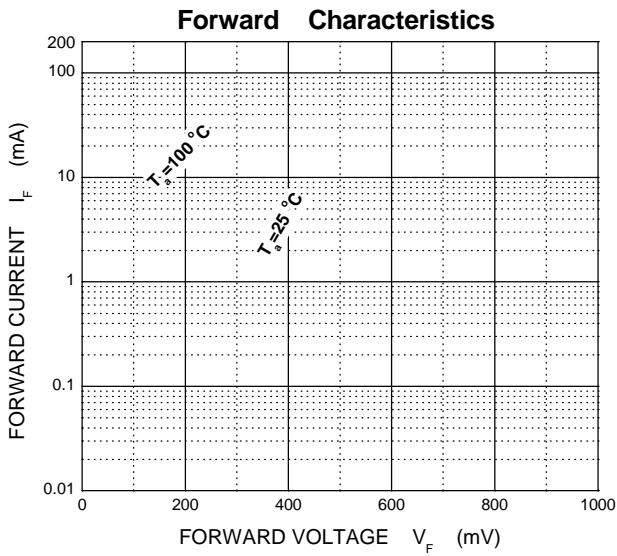
### Limiting Values (Absolute Maximum Rating)

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	VRRM	30	V
Working Peak Reverse Voltage	VRWM		
DC Blocking Voltage	VR		
Forward Continuous Current	IFM	200	mA
Non-repetitive Peak Forward Surge Current @ t=8.3ms	IFSM	600	mA
Repetitive Peak Forward Current @ t≤1s, δ ≤0.5	IFRM	300	mA
Power Dissipation	PD	200	mW
Thermal Resistance from Junction to Ambient	RθJA	500	°C/W
Junction Temperature	T <sub>j</sub>	125	°C
Storage Temperature	T <sub>stg</sub>	-55~+150	°C

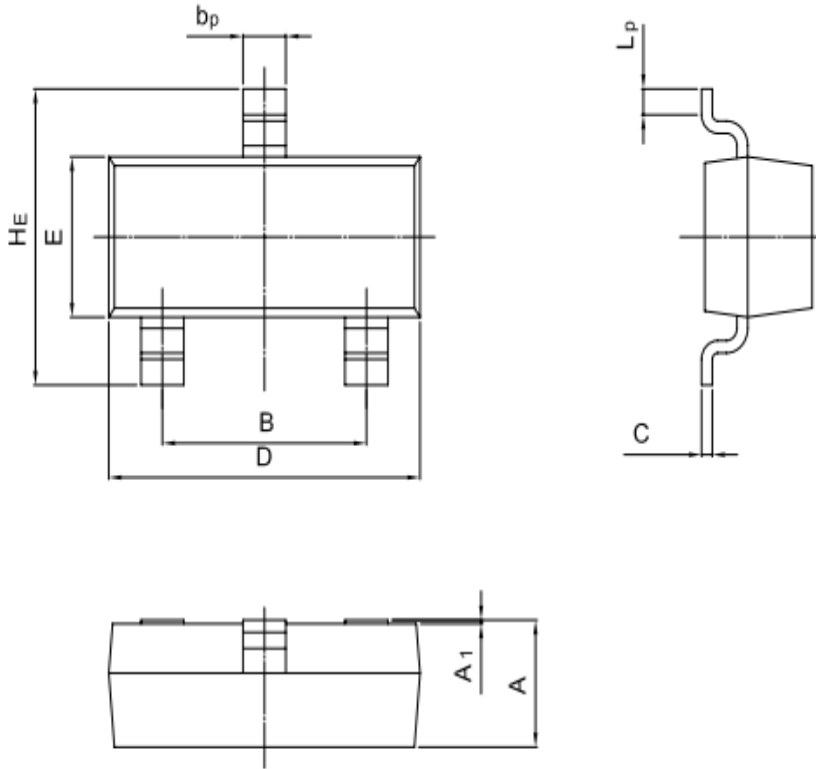
### Electrical Characteristics (Ta=25°C Unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Test conditions
Reverse voltage	V(BR)	30			V	I <sub>R</sub> =100μA
Forward voltage	V <sub>F</sub>			0.24	V	I <sub>F</sub> 1=0.1mA
				0.32	V	I <sub>F</sub> 2=1mA
				0.40	V	I <sub>F</sub> 3=10mA
				0.50	V	I <sub>F</sub> 4=30mA
				1	V	I <sub>F</sub> 5=100mA
Reverse current	I <sub>R</sub>			2	μA	V <sub>R</sub> =25V
Diode capacitance	C <sub>D</sub>			10	pF	V <sub>R</sub> =1V, f=1MHz
Reverse recovery time	t <sub>rr</sub>			5	ns	I <sub>F</sub> =I <sub>R</sub> =10mA I <sub>rr</sub> =0.1×I <sub>R</sub> , R <sub>L</sub> =100Ω

## Typical Characteristics

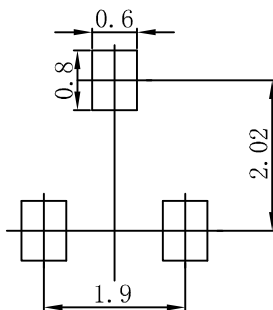


### SOT-23 Package Outline Dimensions



UNIT	A	B	bp	C	D	E	HE	A1	Lp
mm	1.40 0.95	2.04 1.78	0.50 0.35	0.19 0.08	3.10 2.70	1.65 1.20	3.00 2.20	0.100 0.013	0.50 0.20

### SOT-23 Suggested Pad Layout



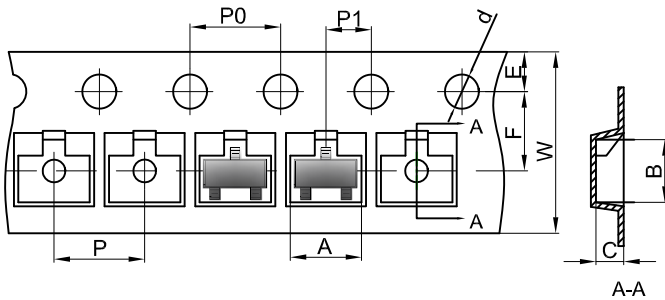
**Note:**

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

**NOTICE**

PROSEMI reserve the right to make modifications, enhancements, improvements, corrections or other changes without further notice to any product herein. PROSEMI does not assume any liability arising out of the application or use of any product described herein.

## SOT-23 Embossed Carrier Tape

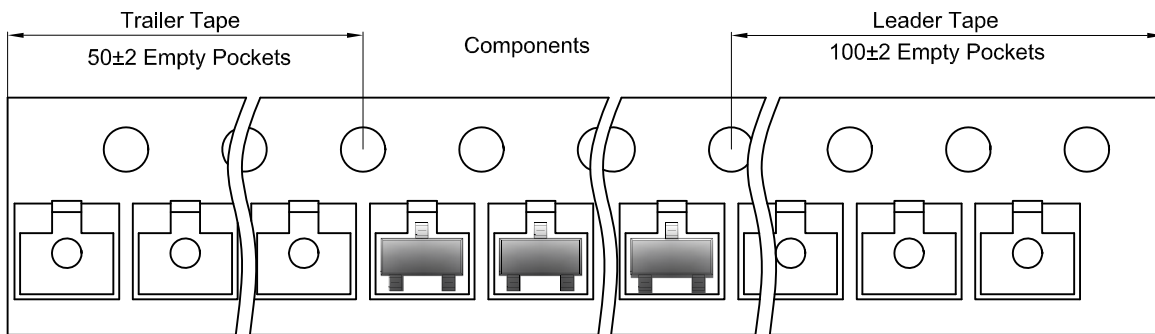


### Packaging Description:

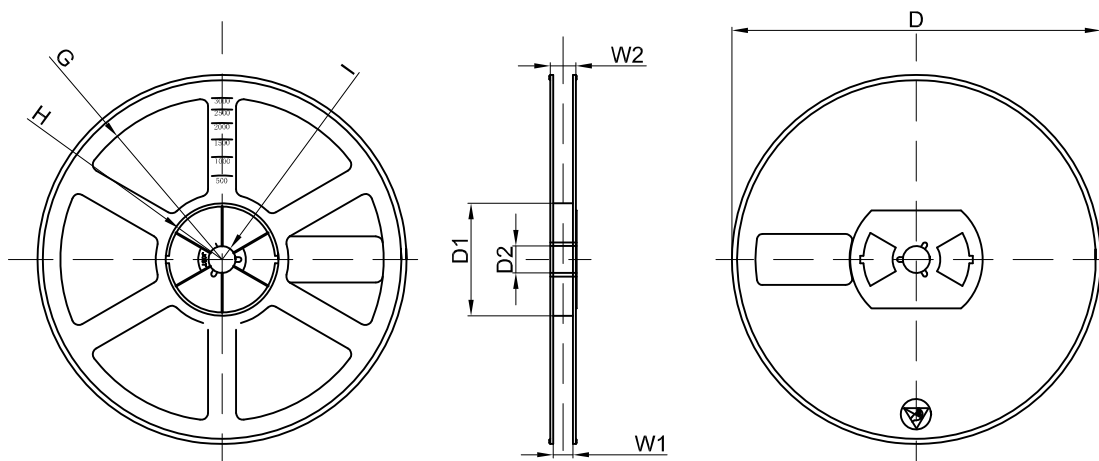
SOT-23 parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 3,000 units per 7" or 17,8cm diameter reel. The reels are clear in color and is made of polystyrene plastic (anti-static coated).

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	438×438×230	-