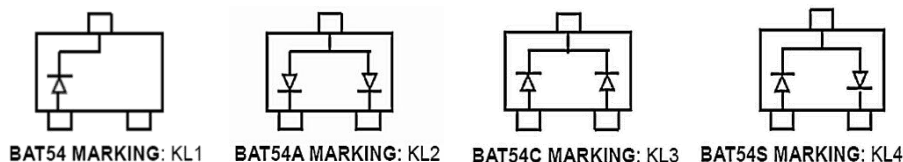


# BAT54/A/C/S

# SCHOTTKY BARRIER DIODE

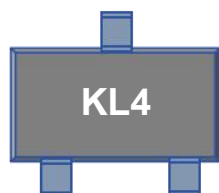
## FEATURES

\* Extremely Fast Switching Speed



## MARKING

EXAMPLE: Marking: KL4



BAT54	KL1
BAT54A	KL2
BAT54C	KL3
BAT54S	KL4

## ABSOLUTE MAXIMUM RATINGS(TA=25°C, unless otherwise specified.)

SYMBOL	PARAMETER	VALUE	UNIT
VRRM	Peak Repetitive Reverse Voltage	30	V
VRWM	Working Peak Reverse Voltage	30	V
VR	DC Blocking Voltage	30	V
IFM	Forward Continuous Current	0.2	A
IFSM	Non-Repetitive Peak Forward Surge Current @t=8.3ms	0.6	A
IFRM	Repetitive Peak Forward Current @ t≤1s, δ ≤0.5	0.3	A
PD	Power Dissipation	0.2	W
TJ	Junction Temperature	150	°C
TSTG	Storage Temperature	-55~150	°C
RθJA	Thermal Resistance from Junction to Ambient	500	°C/W

Notes: Absolute maximum ratings are those values beyond which the device could be permanently damaged.

Absolute maximum ratings are stress ratings only and functional device operation is not implied.

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse voltage	V(BR)	IR=100μA	30			V
Reverse current	IR	VR=25V			2	μA
Diode capacitance	Cd	VR=1V,f=1MHz			10	pF
Reverse recovery time	trr	IF=IR=10mA,Irr=0.1×IR,RL=100Ω			5	ns



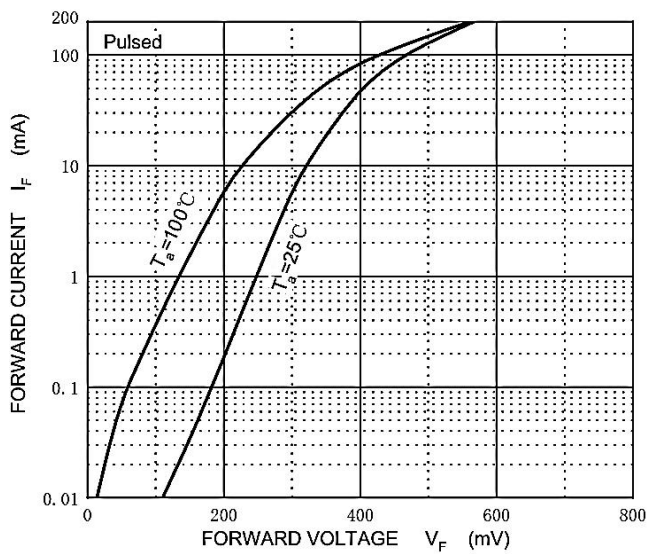
# BAT54/A/C/S

# SCHOTTKY BARRIER DIODE

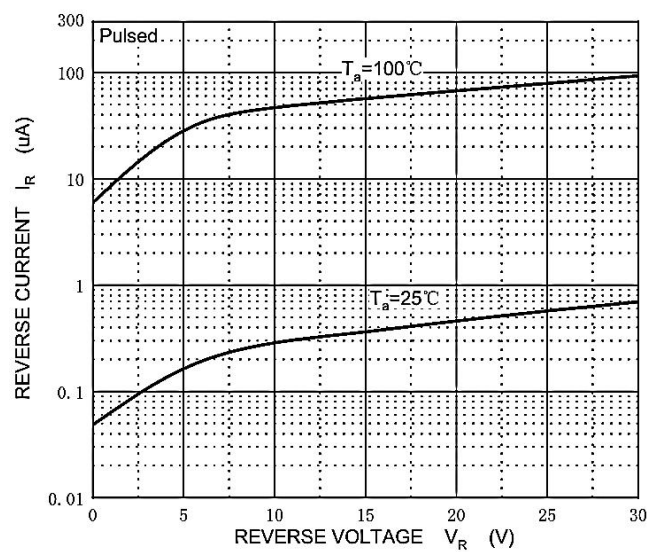
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Forward voltage	VF1	IF1=0.1mA			0.24	V
		IF2=1mA			0.32	V
		IF3=10mA			0.40	V
		IF4=30mA			0.50	V
		IF5=100mA			1	V

## Typical Characteristics

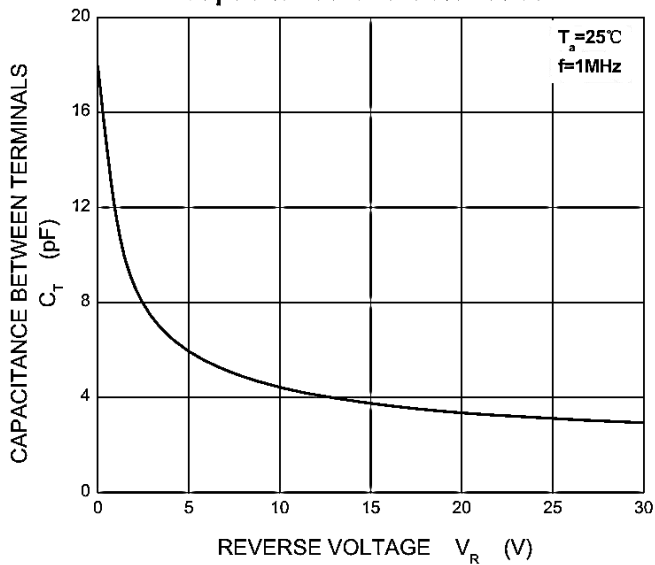
### Forward Characteristics



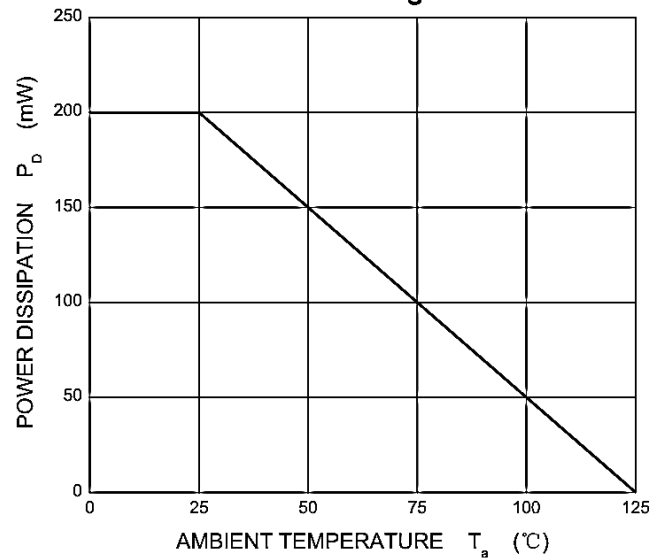
### Reverse Characteristics



### Capacitance Characteristics



### Power Derating Curve



# BAT54/A/C/S

# SCHOTTKY BARRIER DIODE

## SOT23 PACKAGE OUTLINE DIMENSIONS

Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.9	1.15	0.035	0.045
A1	0	0.1	0	0.004
A2	0.9	1.05	0.035	0.041
b	0.3	0.5	0.012	0.02
c	0.08	0.15	0.003	0.006
D	2.8	3	0.11	0.118
E	1.2	1.4	0.047	0.055
E1	2.25	2.55	0.089	0.1
e	0.950 TYP		0.037 TYP	
e1	1.8	2	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.25	0.45	0.01	0.02
theta	0°	8°	0°	8°

**Note:**

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

## REEL PACKING

Top cover tape thickness 0.10 mm (0.004") max. thick

Embossed carrier tape

Trailer Tape 50±2 Empty Pockets

Components

Leader Tape 100±2 Empty Pockets

Dimensions: A, B, C, D, E, F, P, P0, P1, W

Carrier Tape Details: T1 0.9±0.2, T2 1.1±0.2, F 9.6+0.8-0.3, E 12.3±0.5, C 9.6±2, D 2.7±0.2, C Φ13.5±0.3, Φ17.8±0.1

Dimensions are in millimeter										
PKG TYPE	A	B	C	d	E	F	Po	P	P1	W
SOT-23	3.17	2.77	1.22	Φ1.55	1.75	3.50	4.00	4.00	2.00	8.00
Reel Option	A	B	C	D	E	F	G	T1	T2	Q.TY PER REEL
7" Dia	Φ177.8	Φ54.5	Φ13.5	2.7	12.3	9.6	9.6	0.9	1.1	3000PCS