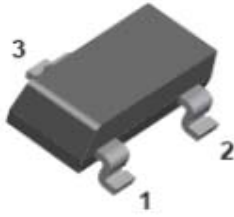


## Schottky Barrier Diode



### Features

- Epoxy meets UL-94 V-0 flammability rating, halogen-free
- Moisture Sensitivity Level 1
- Low Forward Voltage
- Surface Mount device

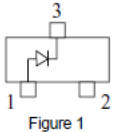


Figure 1

BAT54

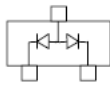


Figure 2

BAT54A

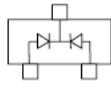


Figure 3

BAT54C

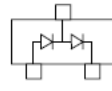


Figure 4

BAT54S

### Marking

BAT54	KL1
BAT54A	KL2
BAT54C	KL3
BAT54S	KL4

### ■Maximum Rating, ( $T_A=25^{\circ}\text{C}$ Unless otherwise specified)

Item	Symbol	Unit	Value
Continuous Reverse Voltage	$V_R$	V	30
Maximum RMS Voltage	$V_{RMS}$		21
Forward Continuous Current	$I_F$	mA	200
Non-Repetitive Peak Forward Surge Current @ $t < 1\text{s}$	$I_{FSM}$	A	0.6
Total Power Dissipation @ $T_A=25^{\circ}\text{C}$	$P_D$	mW	200
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	$^{\circ}\text{C}/\text{W}$	500
Junction Temperature	$T_J$	$^{\circ}\text{C}$	-55 to +125
Storage temperature range	$T_{stg}$	$^{\circ}\text{C}$	-55 to +125

### ■Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BAT54	F2	Approximate 0.008	3000	30000	120000	7" reel
BAT54A	F2	Approximate 0.008	3000	30000	120000	7" reel
BAT54C	F2	Approximate 0.008	3000	30000	120000	7" reel
BAT54S	F2	Approximate 0.008	3000	30000	120000	7" reel



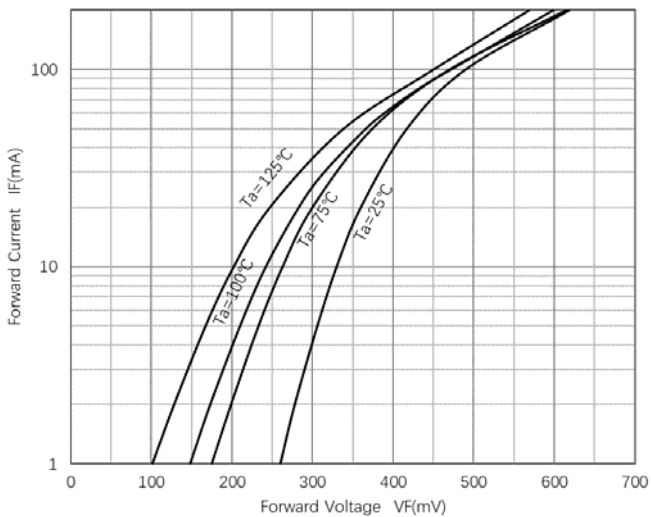
# BAT54 THRU BAT54S

## ■ Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

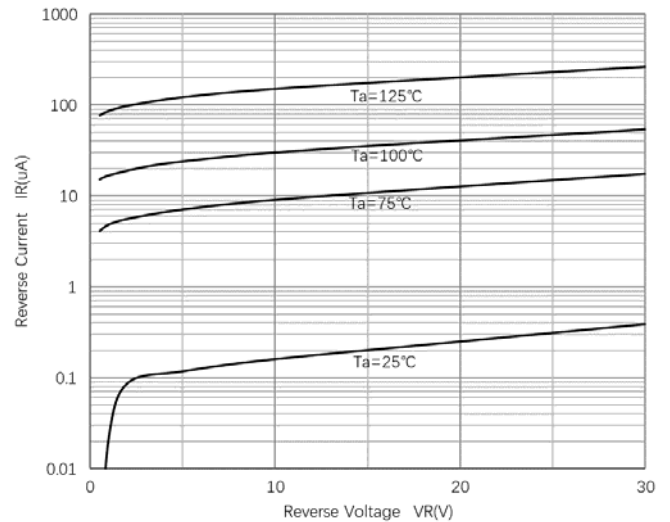
Item	Symbol	Unit	Conditions	Value
Minimum Breakdown Voltage	V <sub>R</sub>	V	I <sub>R</sub> =0.1mA	30
Maximum Instantaneous Forward Voltage	V <sub>F</sub>	V	I <sub>FM</sub> =0.1mA	0.24
			I <sub>FM</sub> =1mA	0.32
			I <sub>FM</sub> =10mA	0.4
			I <sub>FM</sub> =30mA	0.5
			I <sub>FM</sub> =100mA	1
Maximum DC Reverse Current	I <sub>R</sub>	uA	V <sub>R</sub> =25V	2
Typical Junction Capacitance	C <sub>J</sub>	pF	f=1.0MHz, V <sub>R</sub> =1.0V	10
Reverse Recovery Time	T <sub>rr</sub>	ns	I <sub>F</sub> =I <sub>R</sub> =10mA, I <sub>(REC)</sub> =1mA	5

## ■ Typical Characteristics

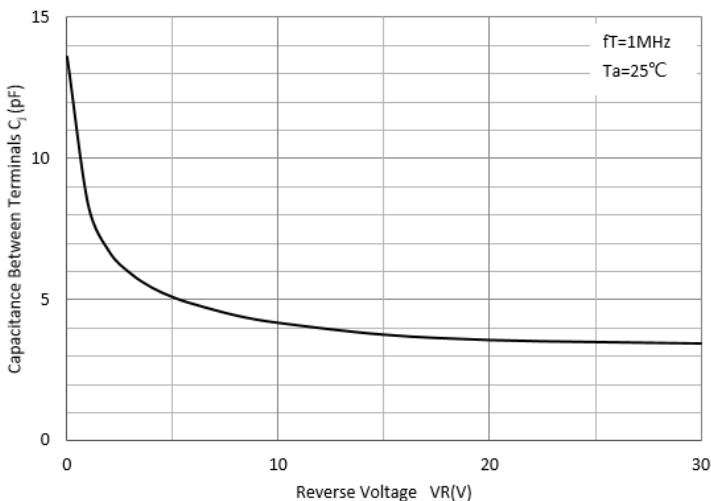
VF-IF



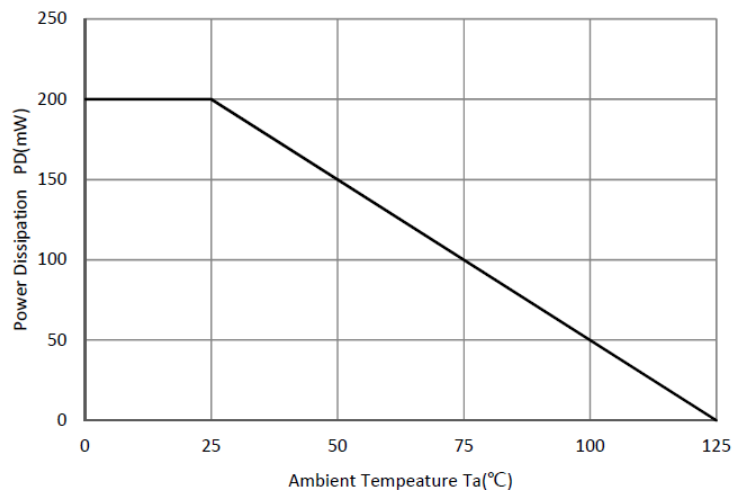
IR-VR



Cj-VR



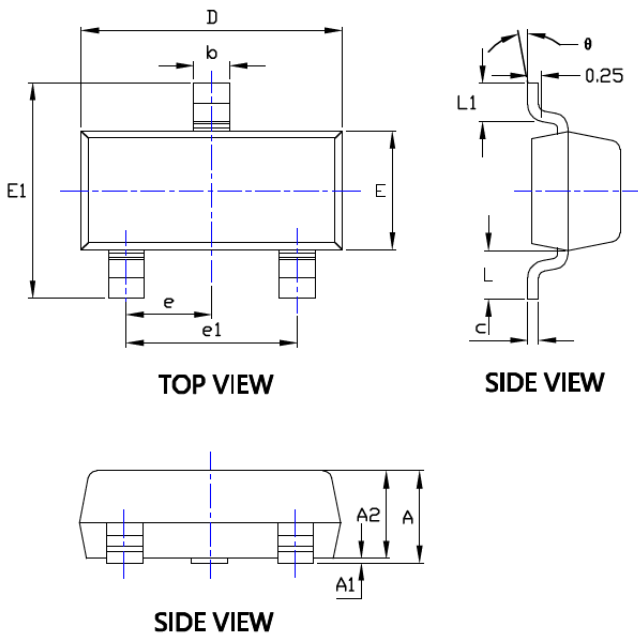
Power Derating Curve





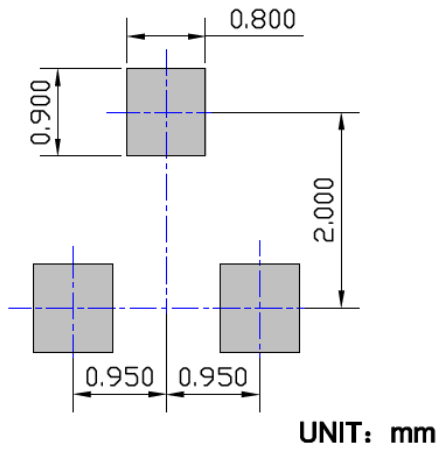
# BAT54 THRU BAT54S

## ■SOT-23 Package Outline Dimensions



SYMBOL	DIMENSIONS			
	INCHES		Millimeter	
	MIN.	MAX.	MIN.	MAX.
A	0.035	0.045	0.900	1.150
A1	0.000	0.004	0.000	0.100
A2	0.035	0.041	0.900	1.050
b	0.012	0.020	0.300	0.500
c	0.004	0.008	0.100	0.200
D	0.110	0.118	2.800	3.000
E	0.047	0.055	1.200	1.400
E1	0.089	0.100	2.250	2.550
e	0.037TYP		0.950TYP	
e1	0.071	0.079	1.800	2.000
L	0.022REF		0.550REF	
L1	0.012	0.020	0.300	0.500
$\theta$	0°	8°	0°	8°

## ■SOT-23 Soldering Footprint





## BAT54 THRU BAT54S

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