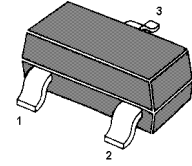
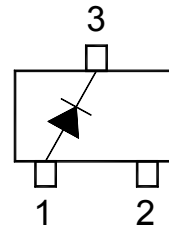


# BAT400D

## Surface Mount Schottky Barrier Rectifier



1. Anode 2. NC 3. Cathode  
SOT-23 Plastic Package

### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$	40	V
Working Peak Reverse Voltage	$V_{RWM}$	40	V
DC Blocking Voltage	$V_R$	40	V
RMS Reverse Voltage	$V_{R(RMS)}$	28	V
Average Forward Current	$I_{F(AV)}$	0.5	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	3	A
Power Dissipation	$P_D$	480	mW
Operating Junction Temperature	$T_j$	125	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-40 to +150	$^\circ\text{C}$

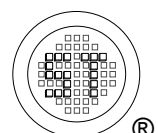
### Thermal Characteristics

Parameter	Symbol	Value	Unit
Typical Thermal Resistance form Ambient	$R_{\theta JA}$	208	$^\circ\text{C}/\text{W}$

<sup>1)</sup> Device mounted on FR-4 substrate PC board, 2oz copper, with 1-inch square copper plate.

### Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 1 \text{ mA}$	$V_{(BR)R}$	40	-	-	V
Forward Voltage at $I_F = 10 \text{ mA}$ at $I_F = 500 \text{ mA}$	$V_F$	-	-	0.3 0.55	V
Reverse Current at $V_R = 10 \text{ V}$ at $V_R = 30 \text{ V}$	$I_R$	-	-	30 50	$\mu\text{A}$
Total Capacitance at $V_R = 0 \text{ V}$ , $f = 1 \text{ MHz}$ at $V_R = 10 \text{ V}$ , $f = 1 \text{ MHz}$	$C_{tot}$	-	70 20	-	pF



# BAT400D

## Electrical Characteristic Curves

Fig 1. Average Forward Derating Curve

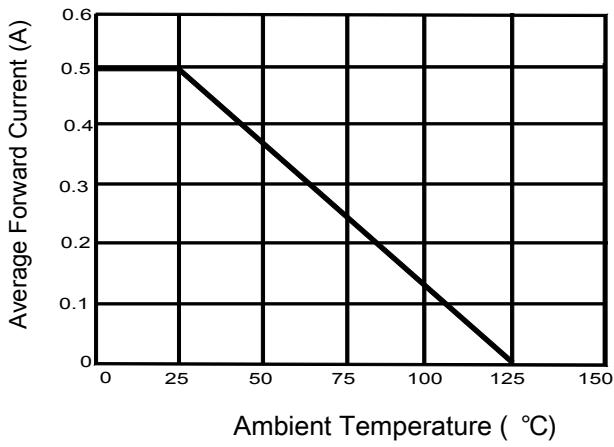


Fig 2. Forward Characteristic Curve

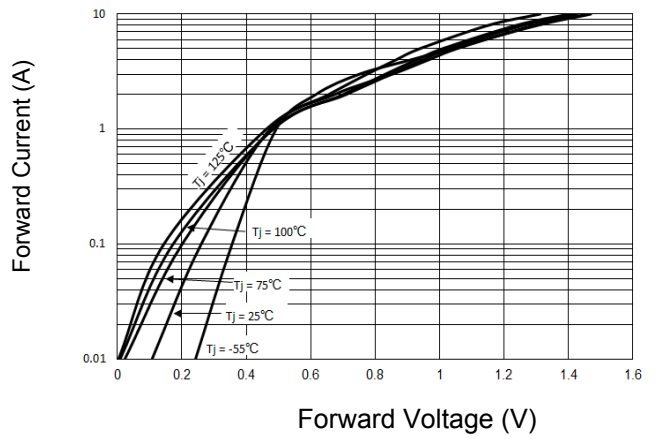


Fig 3. Reverse Characteristic Curve

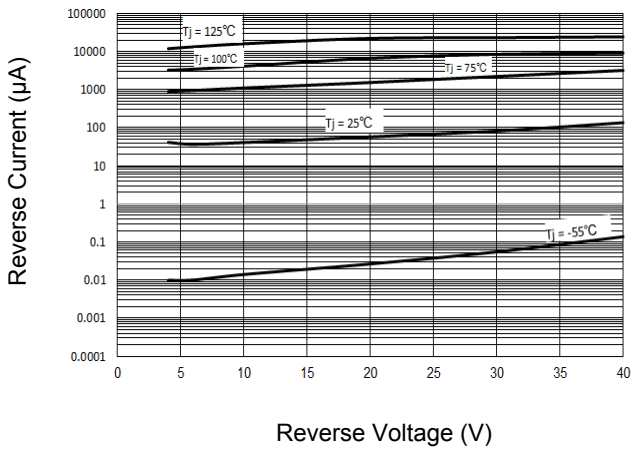
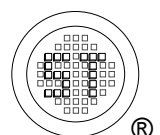
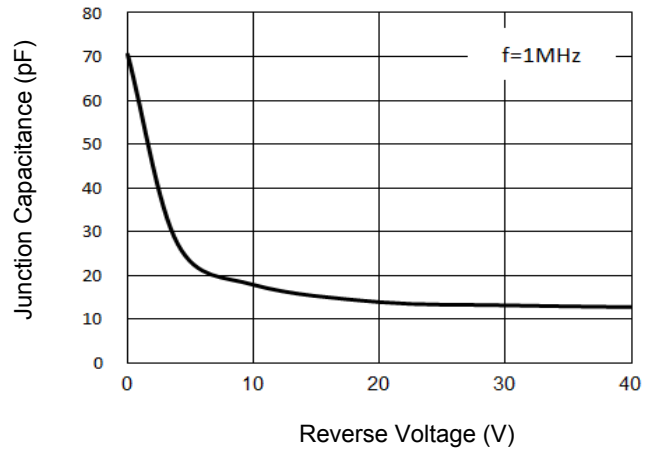


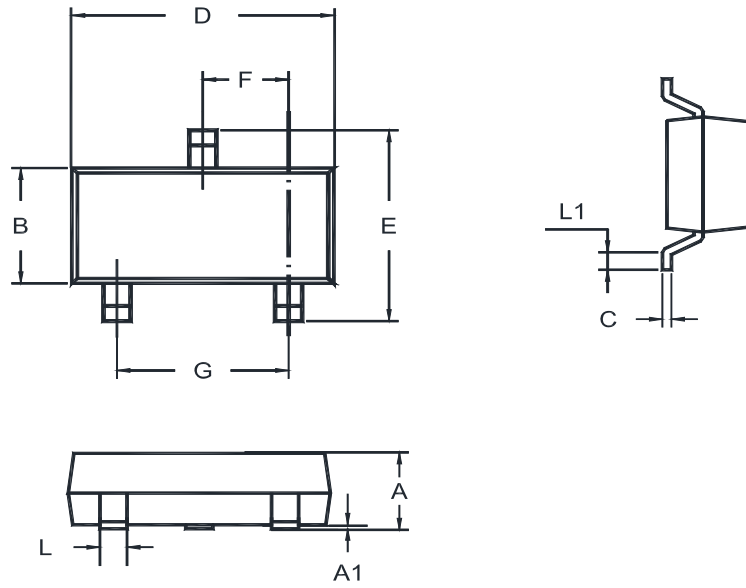
Fig 4. Junction Capacitance



# BAT400D

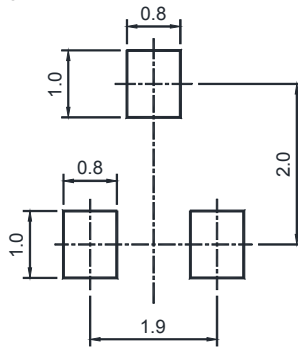
## Package Outline (Dimensions in mm)

SOT-23



Unit	A	A1	B	C	D	E	F	G	L	L1
mm	1.20	0.100	1.40	0.19	3.04	2.6	1.02	2.04	0.51	0.2
	0.89	0.013	1.20	0.08	2.80	2.2	0.89	1.78	0.37	MIN

## Recommended Soldering Footprint



## Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOT-23	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

## Marking information

- " PK " = Part No.
  - " YM " = Date Code Marking
  - " Y " = Year
  - " M " = Month
- Font type: Arial

