

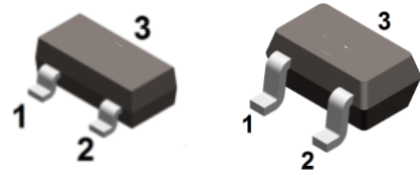


Features

- Small mold type
- Low I_R
- High reliability

Typical Applications

- Low power rectification

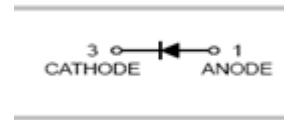


RB421D
SOT-23

RB451F
SOT-323

Mechanical Data

- Case: SOT-23 , SOT-323
- Molding compound, UL flammability classification rating 94V-0
- Terminals: Tin plated leads, solderable per MIL-STD-202, Method 208



Ordering Information

Part Number	Package	Shipping	Marking Code
RB421D	SOT-23	3000 pcs / Tape & Reel	D3C
RB451F	SOT-323	3000 pcs / Tape & Reel	3C

Maximum Ratings (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	40	V
DC Reverse Voltage	V_R		
Average Rectified Forward Current	I_o	100	mA
Forward Current Surge Peak	I_{FSM}	1	A

Thermal Characteristics

Parameter	Symbol	RB421D	RB451F	Unit
Power Dissipation	P_D	350	250	mW
Typical Thermal Resistance per leg	$R_{\theta JA}^*$	286	400	$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	T_J	-40 to 125		$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-40 to +150		$^\circ\text{C}$

* Part mounted on FR-4 board with recommended pad layout



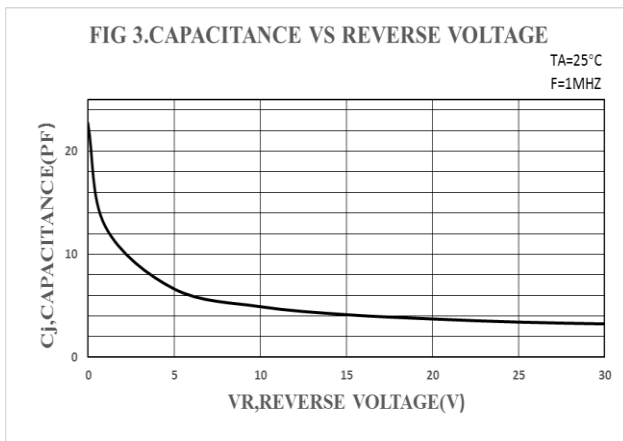
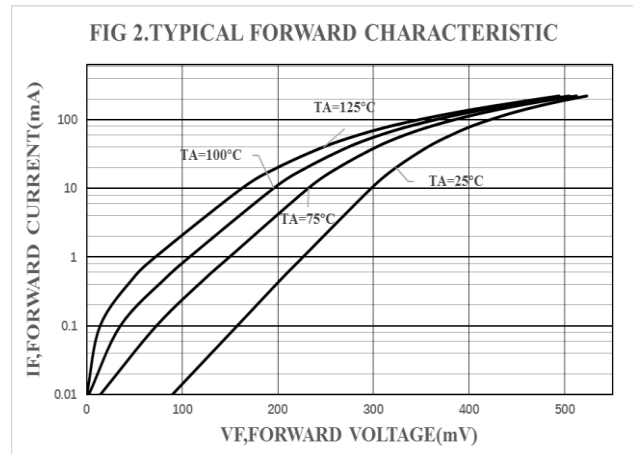
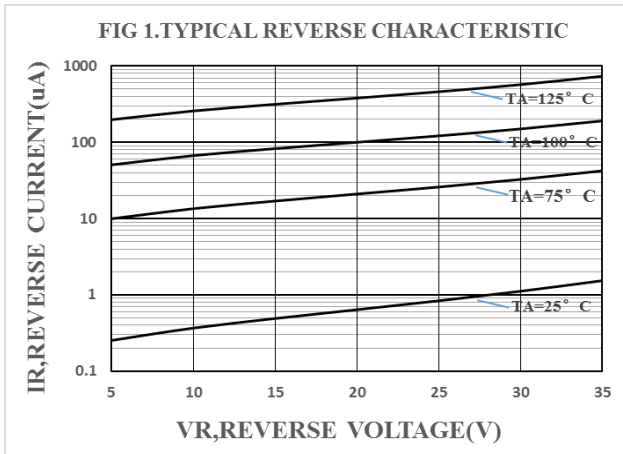
Electrical Characteristics (@ T_A = 25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	V _{(BR)R}	I _R = 100μA	40	-	-	V
Forward Voltage	V _F *	I _F =10mA	-	-	0.34	V
		I _F =100mA	-	-	0.55	
Reverse Current	I _R **	V _R =10V	-	-	30	uA
Capacitance Between Terminals	C _T	V _R =10V, f=1MHz	-	6	-	pF

*Pulse width ≤380 uS, Duty cycle < 2%

**pulse test , t_p≤5ms

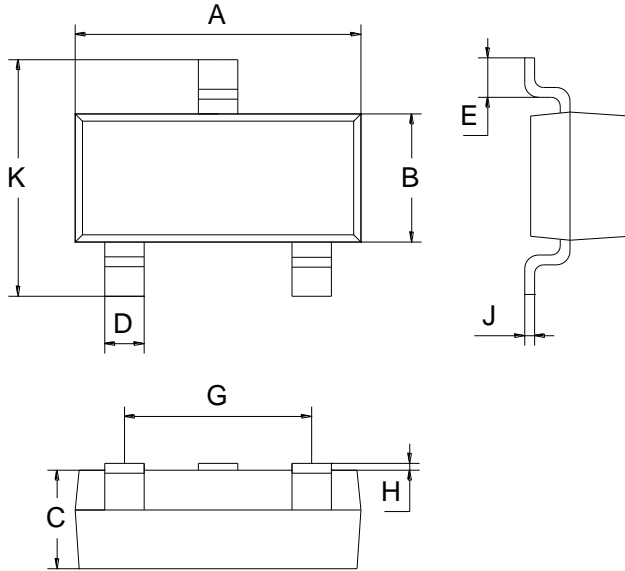
Ratings and Characteristic Curves (@ T_A = 25°C unless otherwise specified)





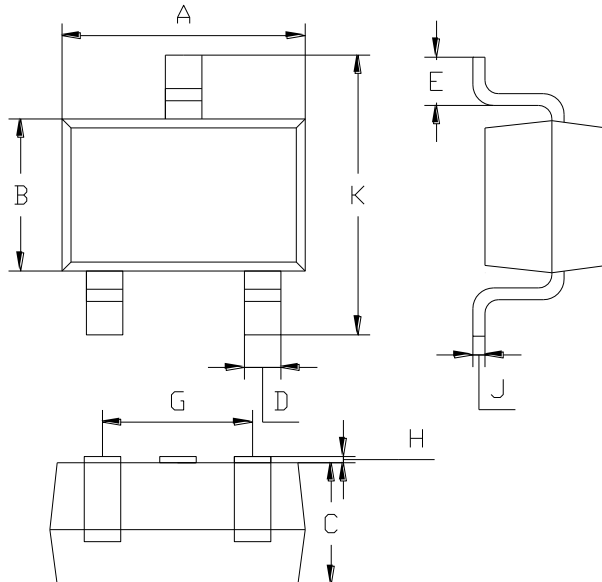
Package Outline Dimensions (unit: mm)

SOT-23



SOT-23		
Dim	Min	Max
A	2.70	3.10
B	1.10	1.50
C	0.90	1.10
D	0.30	0.50
E	0.35	0.48
G	1.80	2.00
H	0.02	0.10
J	0.05	0.15
K	2.20	2.60

SOT-323

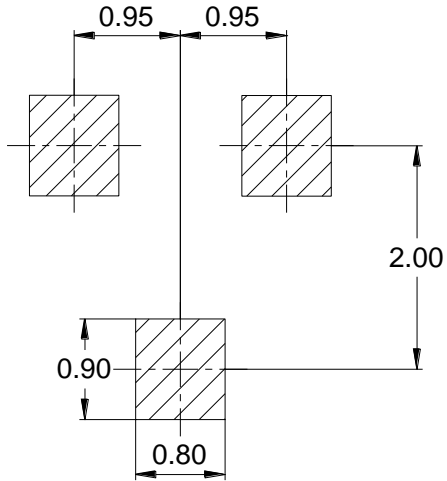


SOT-323		
Dim	Min	Max
A	2.00	2.20
B	1.15	1.35
C	0.90	1.10
D	0.15	0.35
E	0.25	0.40
G	1.20	1.40
H	0.02	0.10
J	0.05	0.15
K	2.20	2.40



Mounting Pad Layout (unit: mm)

SOT-23



SOT-323

