



Features

- Low reverse current and low forward voltage.
- High reliability.
- Small surface mounting type.



RB520V-30
SOD-323



RB520S-30
SOD-523

Typical Applications

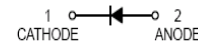
- Low current rectification.



RB520L-30
DFN1006-2

Mechanical Data

- Case: SOD-323,SOD-523,DFN1006-2
- 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
RB520V-30	SOD-323	3000pcs / Tape & Reel	B
RB520S-30	SOD-523	3000pcs / Tape & Reel	B
RB520L-30	DFN1006-2	10000 pcs / Tape & Reel	B

Maximum Ratings (@T_A=25°C unless otherwise specified)

Parameter	Symbol	Value	Units
Peak Repetitive Reverse Voltage	V _{RRM}	30	V
DC Blocking Voltage	V _{DC}	30	V
Maximum Average Forward Output Current	I _{F(AV)}	200	mA
Peak Forward Surge Current,8.3ms Single Half-sine-wave	I _{FSM}	1	A

Thermal Characteristics

Parameter	Symbol	RB520V-30	RB520S-30	RB520L-30	Units
Power Dissipation	P _D	200	150	100	mW
Typical Thermal Resistance per leg	R _{θJA} *	500	667	1000	°C /W
Thermal resistance junction to Lead	R _{θJL}	323	658	987	°C /W
Thermal resistance junction to case	R _{θJc}	276	421	631	°C /W
Operating Junction Temperature Range	T _J	-40 to +125			°C
Storage Temperature Range	T _{STG}	-40 to +150			°C

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



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

Parameter	Symbol	Test conditions	Min.	Typ.	Max.	Units
Forward Voltage	V_F^*	$I_F=200\text{mA}$	-	-	0.6	V
Maximum Peak Reverse Current	I_R^{**}	$V_R=10\text{V}$	-	-	1	μA

*Pulse width $\leq 380\ \mu\text{s}$, Duty cycle $< 2\%$
 **pulse test, $t_p \leq 5\text{ms}$

Ratings and Characteristic Curves ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

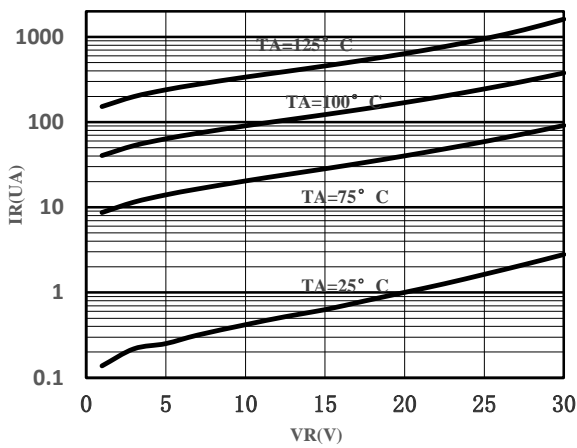


Fig.1- Typical Reverse Characteristic

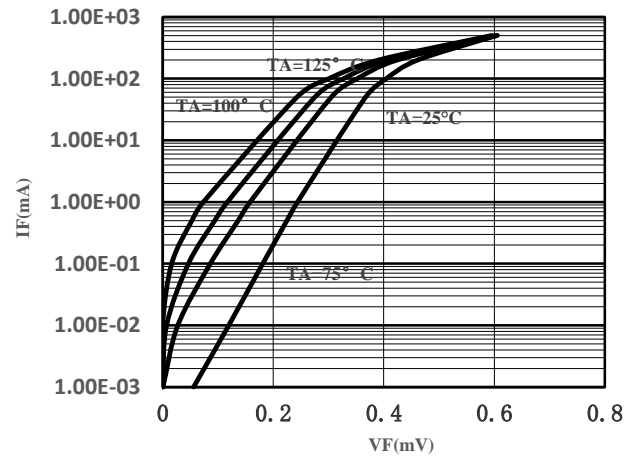


Fig.2- Typical Forward Characteristics

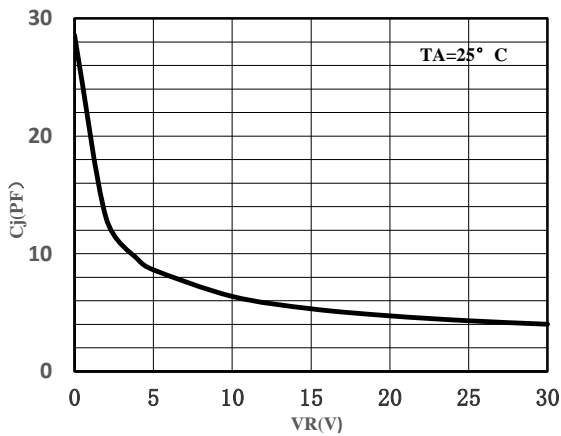


Fig.3-Capacitance Characteristics

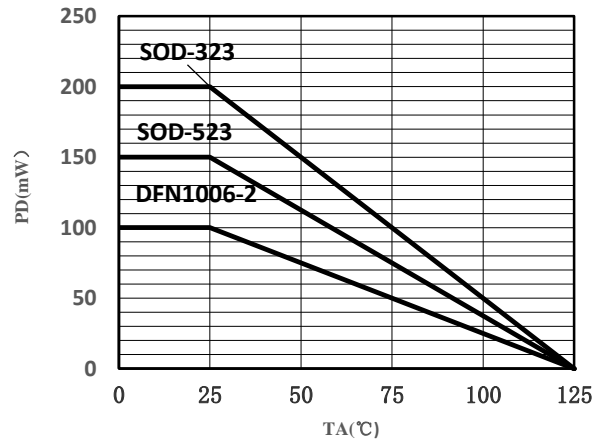
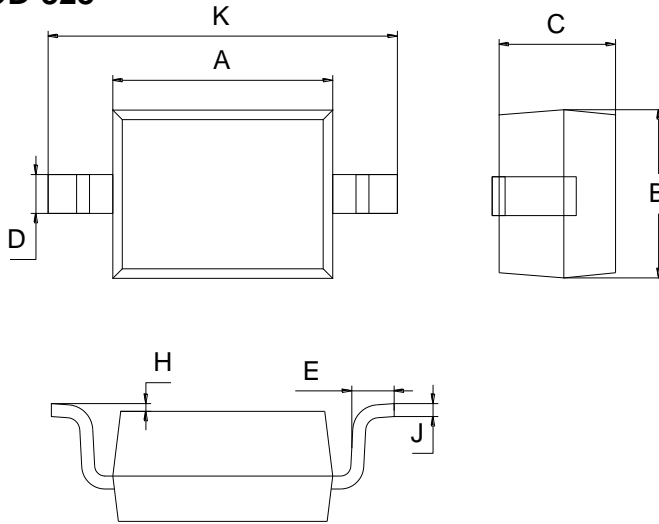


Fig.4-Derating Curve



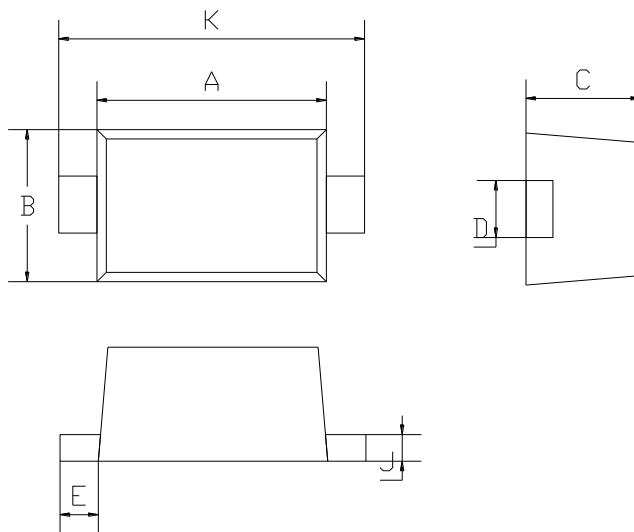
Package Outline Dimensions (unit:mm)

SOD-323



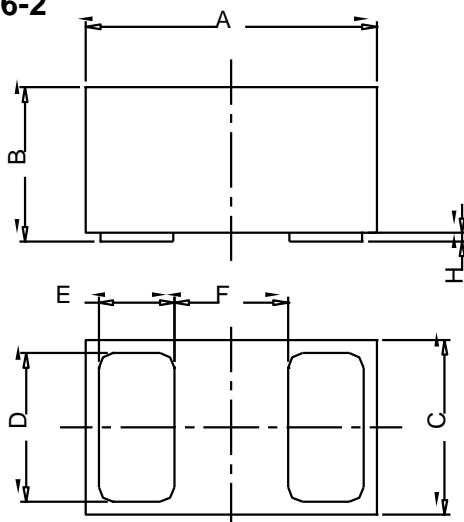
SOD-323		
Dim	Min	Max
A	1.60	1.80
B	1.20	1.40
C	0.80	0.90
D	0.25	0.35
E	0.22	0.42
H	0.02	0.10
J	0.05	0.15
K	2.55	2.75

SOD-523



SOD-523		
Dim	Min	Max
A	1.10	1.30
B	0.70	0.90
C	0.50	0.70
D	0.25	0.35
E	0.15	0.25
J	0.05	0.15
K	1.50	1.70

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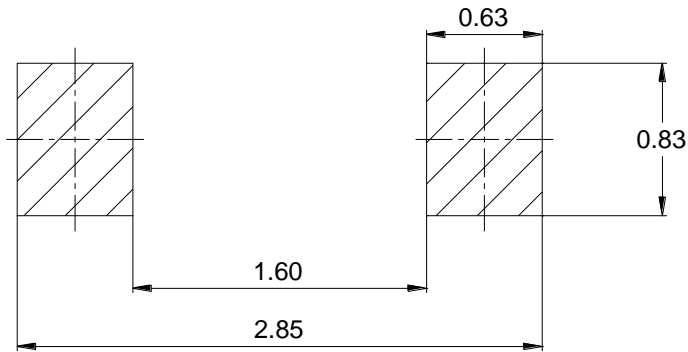


DFN1006-2			
Dim	Min	Typ	Max
A	0.95	1.00	1.075
B	0.47	0.50	0.53
C	0.55	0.60	0.675
D	0.45	0.50	0.55
E	0.20	0.25	0.30
F	-	0.40	-
H	0	0.03	0.05

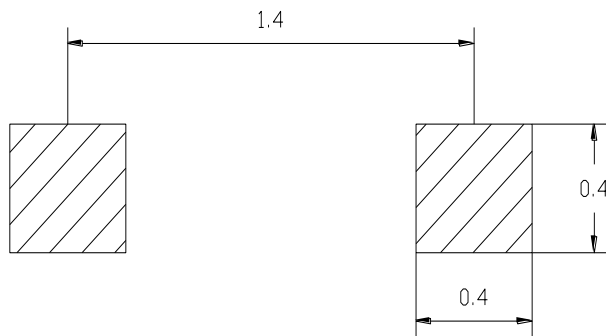


Mounting Pad Layout(unit:mm)

SOD-323



SOD-523



DFN1006-2

