

Features

- Low reverse current and low forward voltage
- High reliability
- Small surface mounting type
- RoHS compliant (non-Halogen)
- Qualified to AEC-Q101 standards for high reliability

HF

Typical Applications

- Low current rectification

Mechanical Data

- Case: SOD-323, SOD-523, DFN1006-2
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte tin-plated leads; solderability-per MIL-STD-202, Method 208



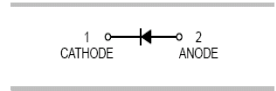
TRB520V-40
SOD-323



TRB520S-40
SOD-523



TRB520L-40
DFN1006-2



Ordering Information

Part Number	Package	Shipping	Marking Code
TRB520V-40	SOD-323	3000pcs / Tape & Reel	D
TRB520S-40	SOD-523	3000pcs / Tape & Reel	D
TRB520L-40	DFN1006-2	10000pcs / Tape & Reel	D

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

Parameter	Symbol	Value	Unit
DC Reverse Voltage	V _{RRM}	40	V
Mean Rectifying Current	I _O	200	mA
Peak Forward Surge Current, 8.3ms Single Half-sine-wave	I _{FSM}	1	A

Thermal Characteristics

Parameter	Symbol	TRB520V-40	TRB520S-40	TRB520L-40	Unit
Power Dissipation	P _D	200	150	100	mW
Typical Thermal Resistance per leg	R _{θJA} *	500	667	1000	°C / W
Operating Junction Temperature Range	T _J	125			°C
Storage Temperature Range	T _{STG}	-40 to +150			°C

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

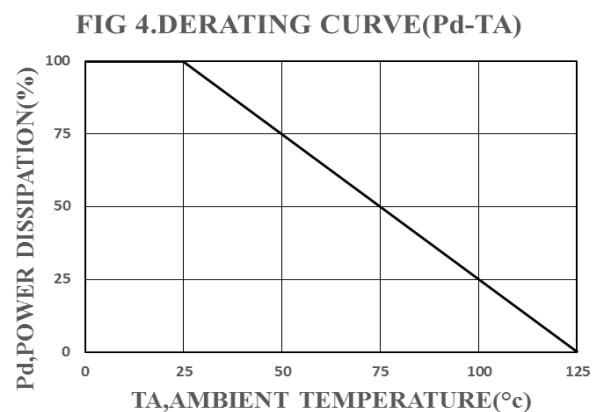
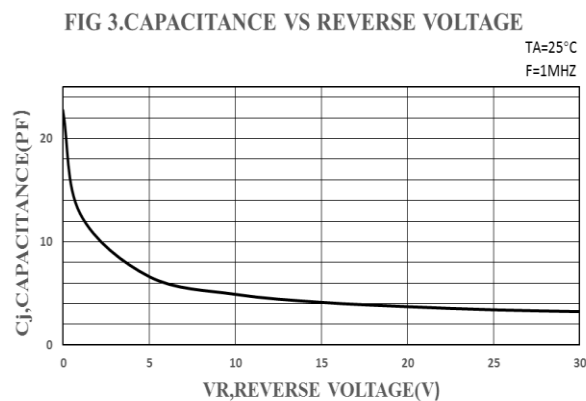
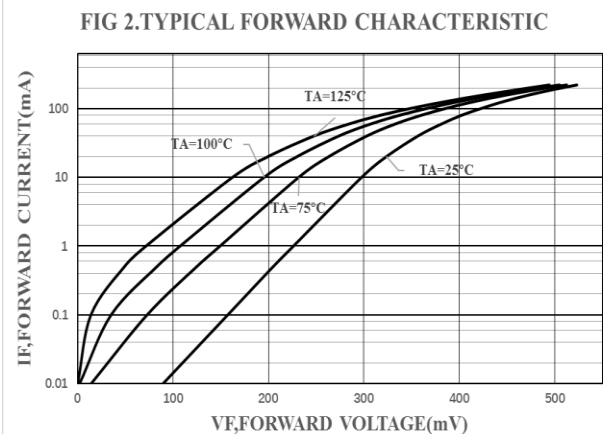
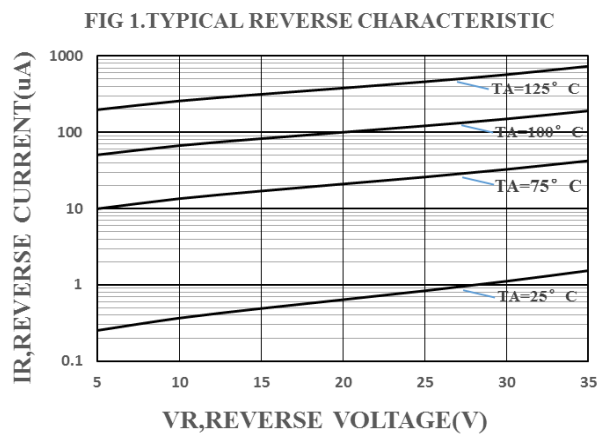
Electrical Characteristics (@T_A=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min.	Typ.	Max.	Units
Forward Voltage	V _F *	I _F =10mA	-	-	0.39	V
		I _F =100mA	-	-	0.55	V
Reverse Current	I _R **	V _R = 10V	-	-	1	uA
		V _R = 40V	-	-	10	uA
Capacitance between terminals	C _T	V _R =0V,f=1MHz	-	22	50	pF

*Pulse width ≤380 uS, Duty cycle < 2%

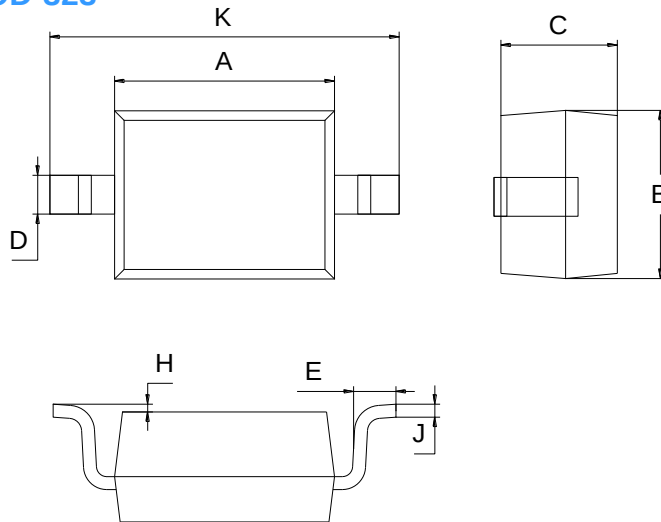
**pulse test , tp≤5ms

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



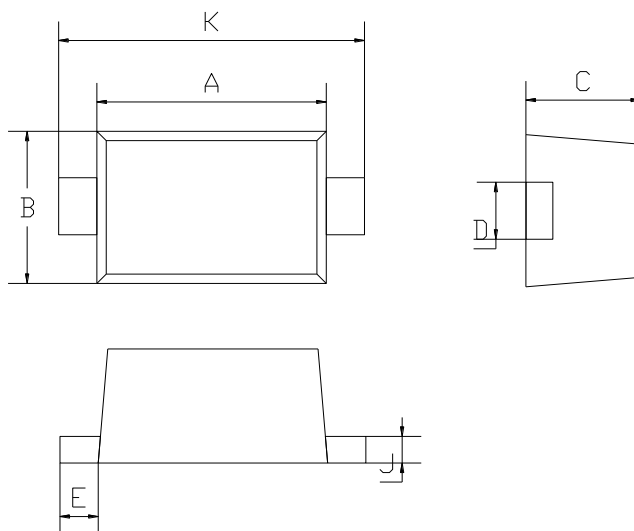
Package Outline Dimensions (unit: mm)

SOD-323



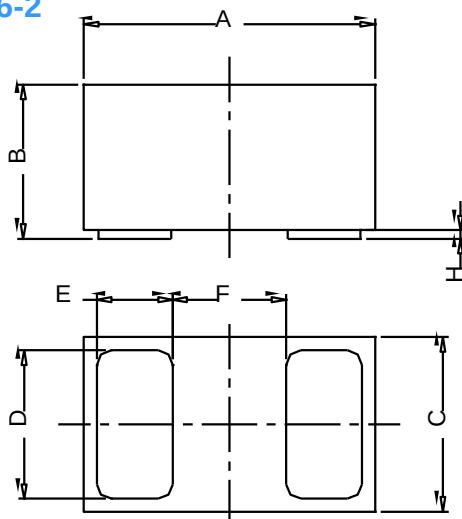
SOD-323		
Dim	Min	Max
A	1.60	1.80
B	1.20	1.40
C	0.80	0.90
D	0.25	0.35
E	0.22	0.42
H	0.02	0.10
J	0.05	0.15
K	2.55	2.75

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

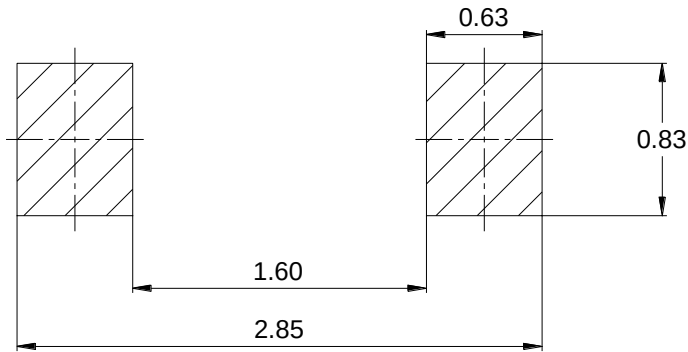
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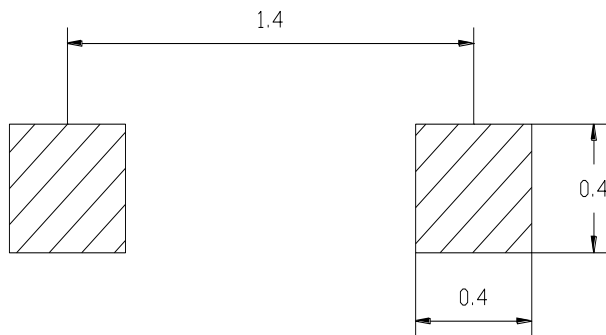
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Dim	Min	Typ	Max
A	0.95	1.00	1.075
B	0.47	0.50	0.53
C	0.55	0.60	0.675
D	0.45	0.50	0.55
E	0.20	0.25	0.30
F	-	0.40	-
H	0	0.03	0.05

Mounting Pad Layout (unit: mm)

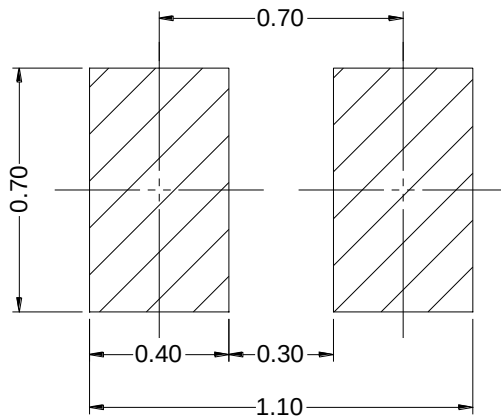
SOD-323



SOD-523



DFN1006-2



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