

Features

- Low forward voltage drop
- Guard ring construction for transient protection
- Negligible reverse recovery time
- RoHS compliant with Halogen-free
- Qualified to AEC-Q101 Standards

HF

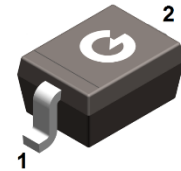


Typical Applications

- For high speed switching applications

Mechanical Data

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



SOD-323

Ordering Information

Part Number	Package	Shipping	Marking Code
TSD101AWS	SOD-323	3000 pcs / Tape & Reel	S1
TSD101BWS	SOD-323	3000 pcs / Tape & Reel	S2
TSD101CWS	SOD-323	3000 pcs / Tape & Reel	S3

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

Characteristic	Symbol	TSD101AWS	TSD101BWS	TSD101CWS	Units
Peak Repetitive Reverse Voltage	V _{RRM}	60	50	40	V
RMS Reverse Voltage	V _{RMS}	42	35	28	V
Forward Continuous Current (T _A = 25°C)	I _{FM}	15			mA
Forward Continuous Current (T _C = 25°C)		70			mA
Repetitive Peak Forward Current @t<1.0s @t=10μs	I _{FRM}	50			mA
		2			A

Thermal Characteristics

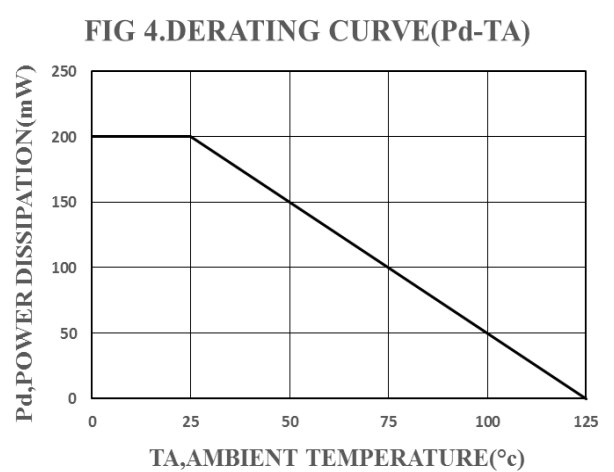
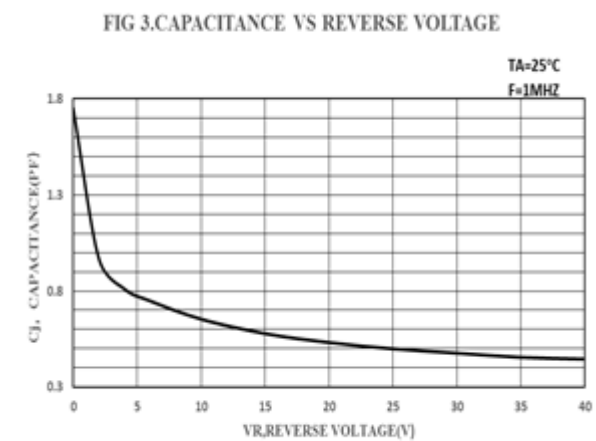
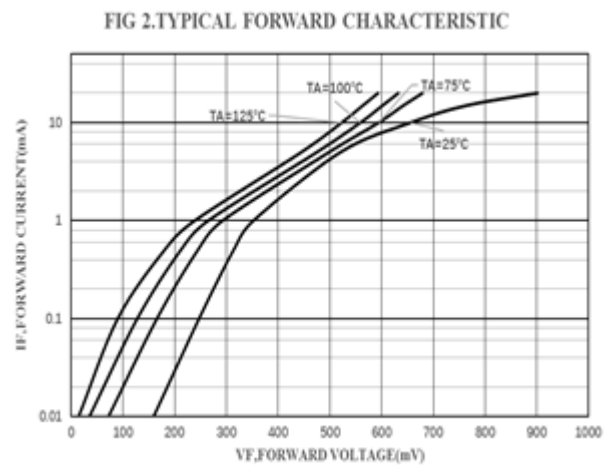
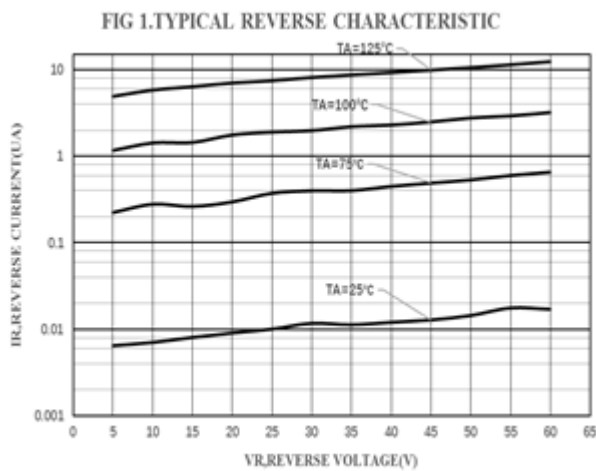
Characteristic	Symbol	Value	Units
Power dissipation	P _D	200	mW
Typical thermal resistance per leg	R _{θJA} *	500	°C/W
Operating junction temperature range	T _J	-55 ~ +125	°C
Storage temperature range	T _{STG}	-55 ~ +150	°C

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

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

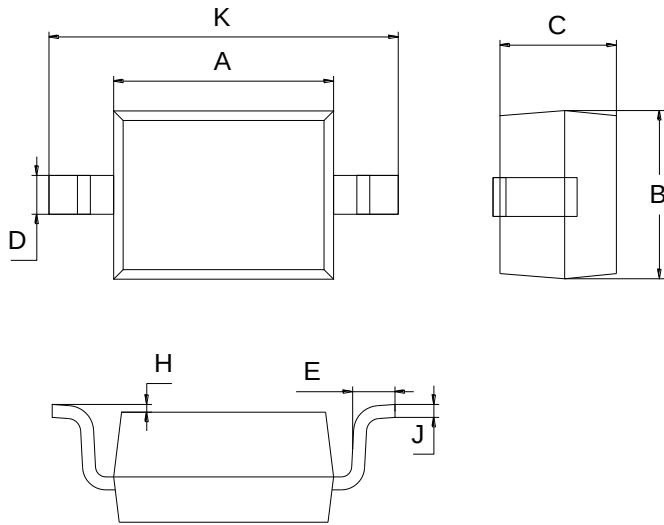
Characteristic	Symbol	Test conditions	Min.	Typ.	Max.	Units
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R = 10\mu\text{A}$, TSD101AWS	60	-	-	V
		$I_R = 10\mu\text{A}$, TSD101BWS	50	-	-	V
		$I_R = 10\mu\text{A}$, TSD101CWS	40	-	-	V
Forward Voltage	V_F^*	$I_F=1\text{mA}$ TSD101AWS	-	-	0.41	V
		TSD101BWS			0.40	
		TSD101CWS			0.39	
		$I_F=15\text{mA}$ TSD101AWS	-	-	1.00	
		TSD101BWS			0.95	
		TSD101CWS			0.90	
Maximum Peak Reverse Current	I_R^{**}	$V_R = 50\text{V}$ (TSD101AWS)	-	-	0.2	μA
		$V_R = 40\text{V}$ (TSD101BWS)			0.2	
		$V_R = 30\text{V}$ (TSD101CWS)			0.2	
Capacitance Between Terminals	C_T	$V_R=0\text{V}, f=1\text{MHz}$	-	-	2	pF
* pulse test , $t_p \leq 300\mu\text{s}$						
** pulse test , $t_p \leq 5\text{ms}$						

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



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

Mounting Pad Layout (unit: mm)

SOD-323

