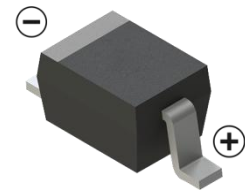
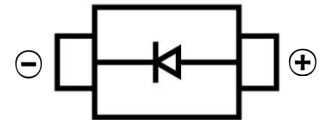


**Silicon Schottky Diode**
**FEATURES**

- Low-power Schottky rectifier diode
- Miniature plastic package for surface mounting (SMD)


**SOD-323**

**MECHANICAL DATA**

- Case: SOD-323
- Case Material: Molded Plastic. UL flammability
- Classification Rating: 94V-0
- Weight: 0.008 grams (approximate)

**MAXIMUM RATINGS ( $T_A = 25^\circ\text{C}$  unless otherwise noted)**

Parameter	Symbol	Value	Unit
Diode reverse voltage	$V_R$	40	V
Forward current	$I_F$	750	mA
Average forward current (50/60Hz, sinus)	$I_{FAV}$	500	
Surge forward current ( $t < 100\mu\text{s}$ )	$I_{FSM}$	2.5	A
Total power dissipation, $T_S = 66^\circ\text{C}$	$P_{tot}$	600	mW
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	- 65 ...+150	
Junction - ambient <sup>1)</sup>	$R_{thJA}$	$\leq 275$	K/W
Junction - soldering point	$R_{thJS}$	$\leq 140$	

1) Package mounted on epoxy pcb 40mm x 40mm x 1.5mm / 0.5cm<sup>2</sup> Cu

**Electrical Characteristics at  $T_A = 25^\circ\text{C}$ , unless otherwise specified.**

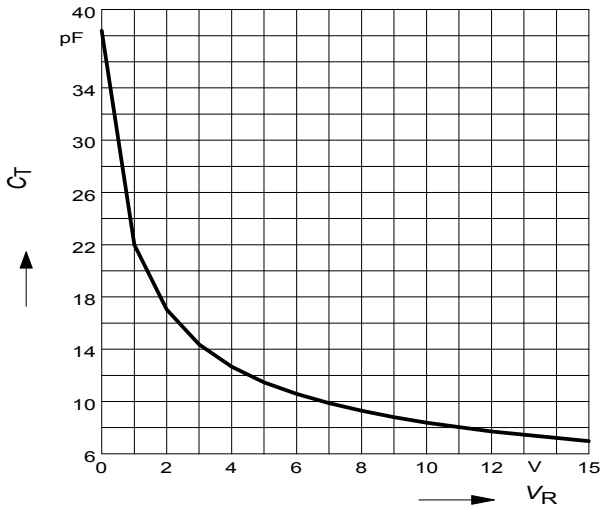
Parameter	Symbol	Values			Unit
		min.	typ.	max.	
Reverse current $V_R = 30\text{ V}$	$I_R$	-	-	50	$\mu\text{A}$
Reverse current $V_R = 30\text{ V}, T_A = 65^\circ\text{C}$	$I_R$	-	-	900	nA
Forward voltage $I_F = 10\text{ mA}$	$V_F$	-	0.305	0.4	V
$I_F = 100\text{ mA}$		-	0.38	-	
$I_F = 250\text{ mA}$		-	0.44	0.7	
$I_F = 750\text{ mA}$		-	0.58	-	
Diode capacitance $V_R = 10\text{ V}, f = 1\text{ MHz}$	$C_T$	-	8.4	12	pF

**Silicon Schottky Diode**

**Typical Characteristics**

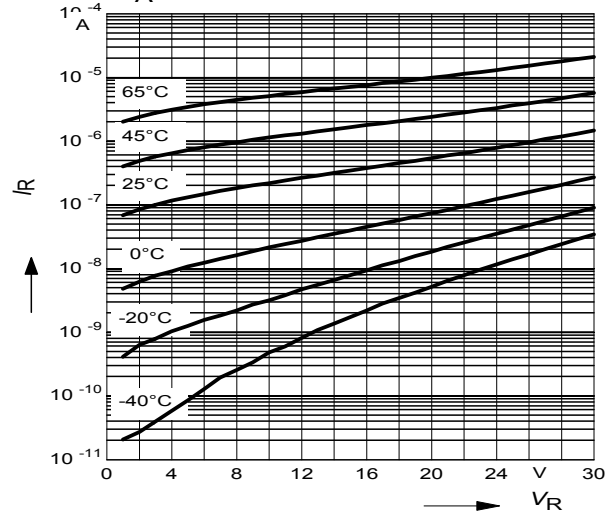
**Diode capacitance  $C_T = f(V_R)$**

$f = 1\text{MHz}$



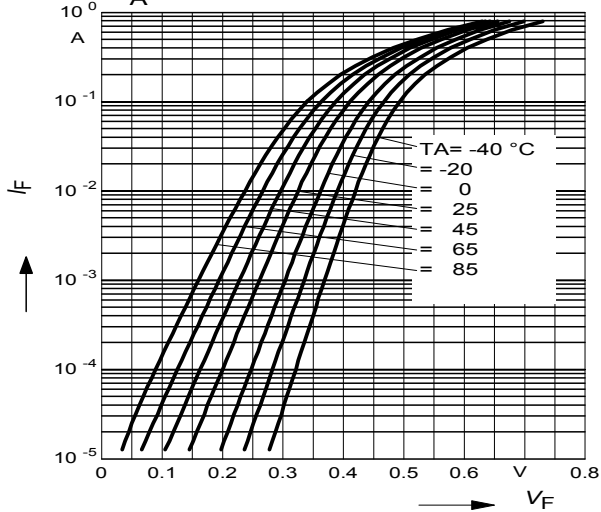
**Reverse current  $I_R = f(V_R)$**

$T_A = \text{Parameter}$

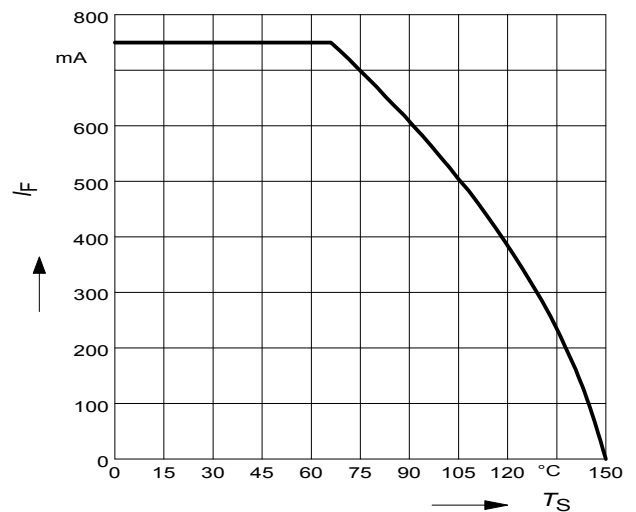


**Forward current  $I_F = f(V_F)$**

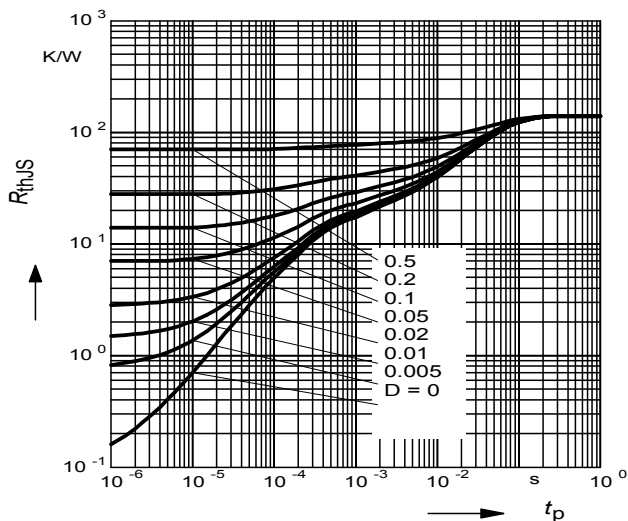
$T_A = \text{Parameter}$



**Forward current  $I_F = f(T_S)$**

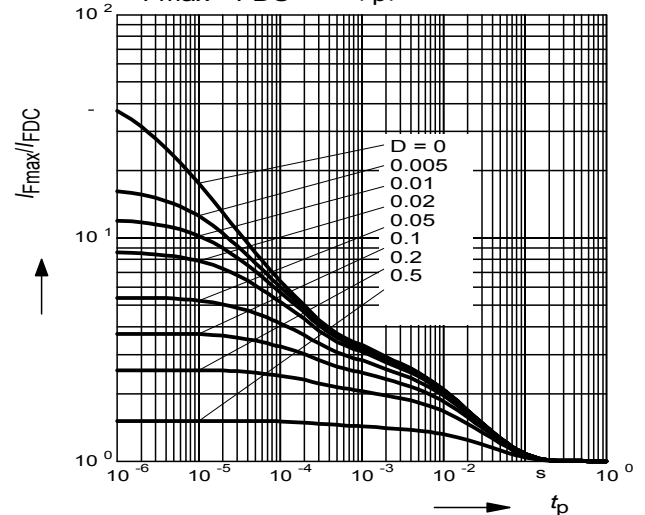


**Permissible Puls Load  $R_{thJS} = f(t_p)$**



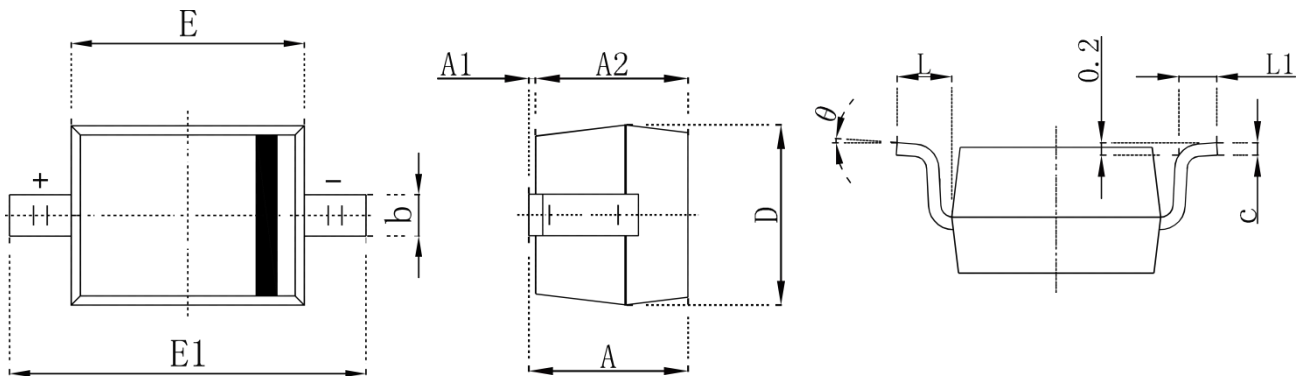
**Permissible Pulse Load**

$I_{Fmax}/I_{FDC} = f(t_p)$



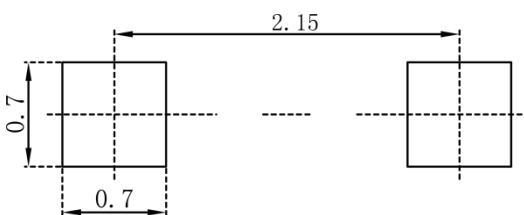
**Silicon Schottky Diode**

**SOD-323 Package Outline Dimensions**



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A		1.000		0.039
A1	0.000	0.100	0.000	0.004
A2	0.800	0.900	0.031	0.035
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	1.200	1.400	0.047	0.055
E	1.600	1.800	0.063	0.071
E1	2.250	2.750	0.100	0.108
L	0.475 REF		0.019 REF	
L1	0.250	0.400	0.010	0.016
θ	0°	8°	0°	8°

**SOD-323 Suggested Pad Layout**



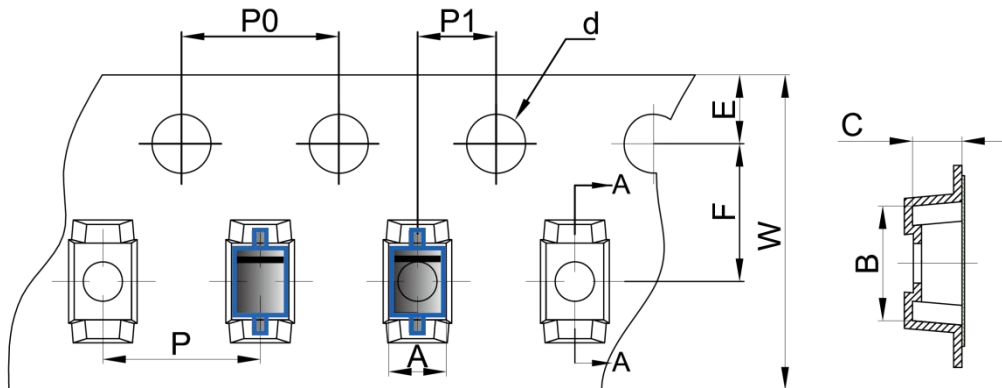
**Note:**

1. Controlling dimension: in millimeters
2. General tolerance: ±0.05mm
3. The pad layout is for reference purposes only

**Silicon Schottky Diode**

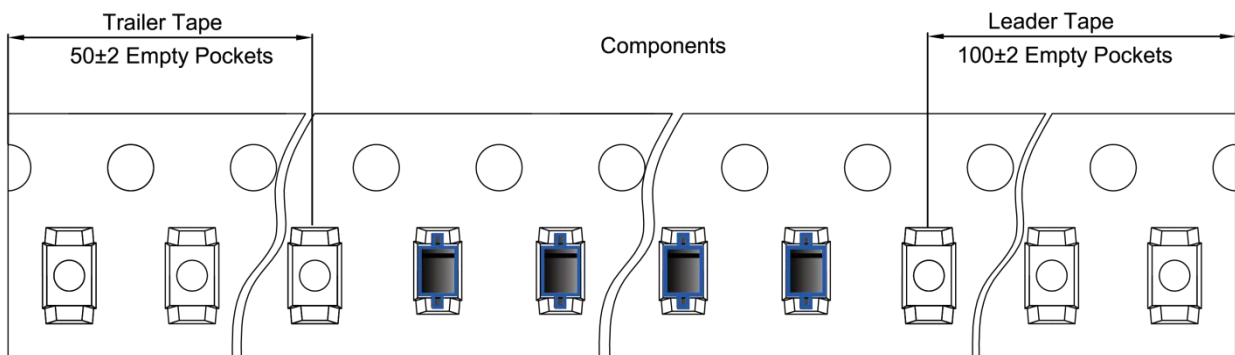
**SOD-323 Tape and Reel**

**SOD-323 Embossed Carrier Tape**

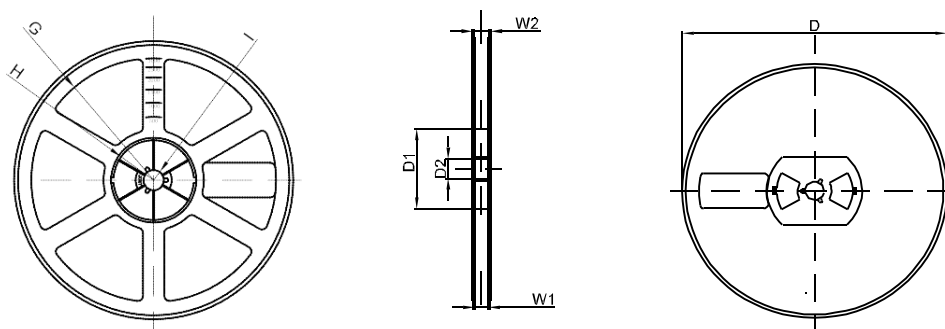


DIMENSIONS ARE IN MILLIMETER										
TYPE	A	B	C	d	E	F	P0	P	P1	W
SOD-323	1.48	3.3	1.25	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00
TOLERANCE	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1

**SOD-323 Tape Leader and Trailer**



**SOD-323 Reel**



DIMENSIONS ARE IN MILLIMETER								
REEL OPTION	D	D1	D2	G	H	I	W1	W2
7" DIA	Ø178	54.40	13.00	R78	R25.60	R6.50	9.50	12.30
TOLERANCE	±2	±1	±1	±1	±1	±1	±1	±1