

# MSKSEMI

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

Product data sheet  
Product data sheet

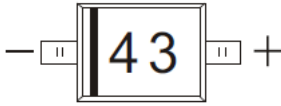
SOD-323



**FEATURES**

- Low Turn-on Voltage
- Designed for Surface Mount Application
- PN Junction Guard for Transient and ESD Protection
- Fast Switching
- Plastic Material –UL Recognition Flammability Classification 94V-O

**MARKING: 43**



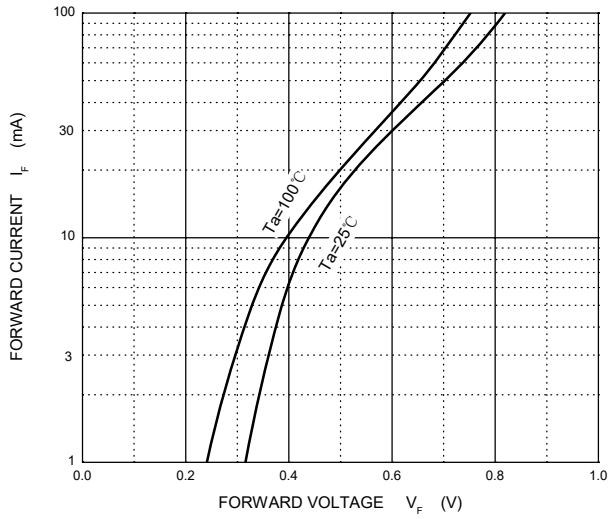
**Maximum Ratings and Electrical Characteristics, Single Diode @Ta=25°C**

Parameter	Symbo	Limit	Unit
Peak Repetitive Peak Reverse Voltage	$V_{RRM}$	40	V
Working Peak Reverse Voltage	$V_{RWM}$		
DC Blocking Voltage	$V_R$		
Forward Continuous Current	$I_F$	200	mA
Non-repetitive Peak Forward Surge Current@t=8.3ms	$I_{FSM}$	600	mA
Power Dissipation	$P_d$	200	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	500	°C/W
Operating Junction Temperature Range	$T_J$	-40 ~ +125	°C
Storage Temperature Range	$T_{STG}$	-55 ~ +150	°C

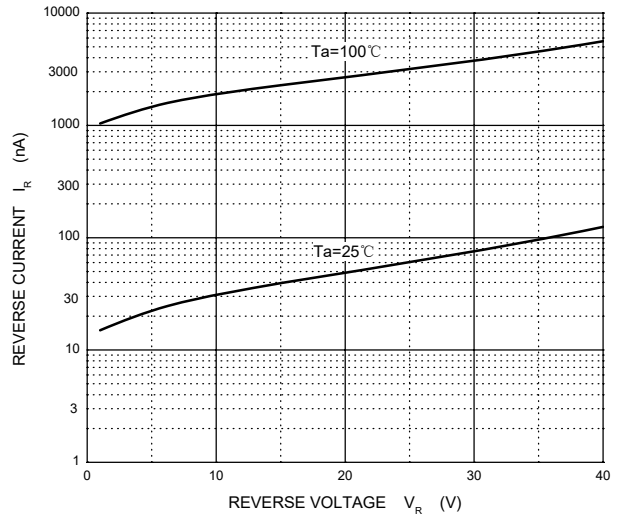
**Electrical Ratings @Ta=25°C**

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Reverse breakdown voltage	$V_{(BR)}$	40			V	$I_R=10\mu A$
Forward voltage	$V_{F1}$			0.38	V	$I_F=1mA$
	$V_{F2}$			0.5	V	$I_F=10mA$
	$V_{F3}$			1	V	$I_F=40mA$
Reverse current	$I_R$		20	200	nA	$V_R=30V$
Capacitance between terminals	$C_T$		4	5	pF	$V_R=0V, f=1MHz$
Reverse recovery time	$t_{rr}$			5	ns	$I_F=I_R=10mA$ $I_{rr}=0.1 \times I_R, R_L=100\Omega$

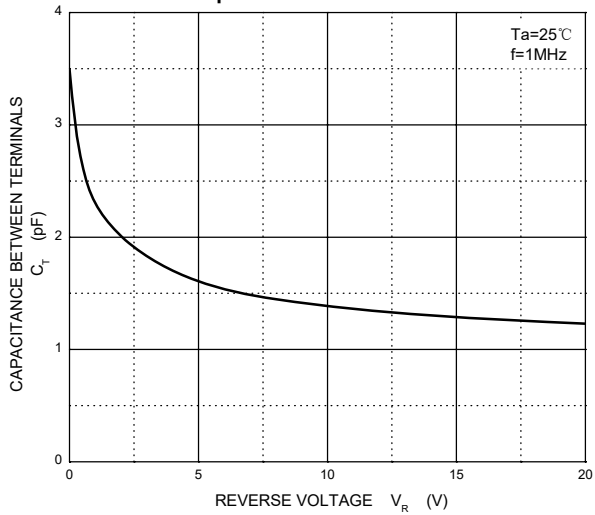
**Forward Characteristics**



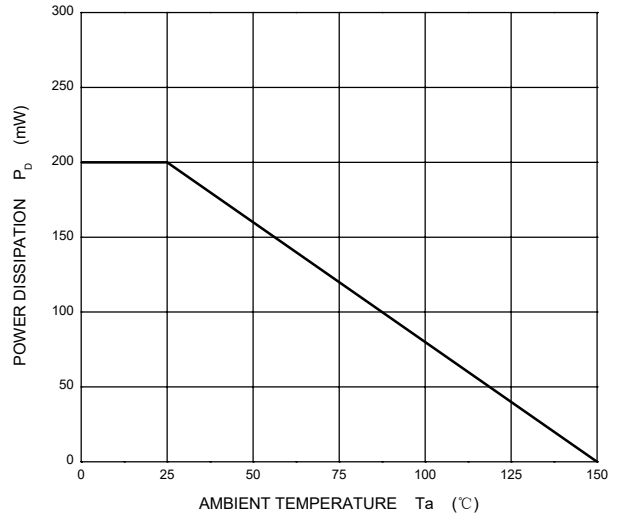
**Reverse Characteristics**



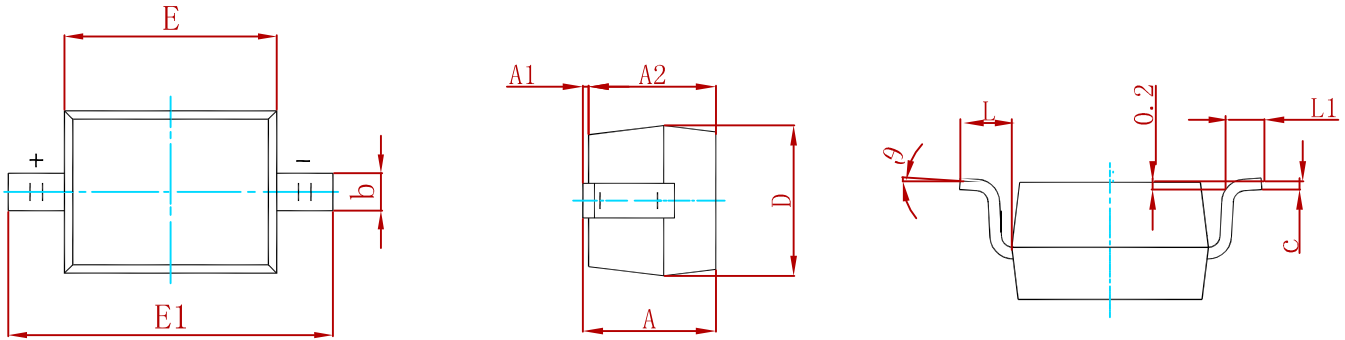
**Capacitance Characteristics**



**Power Derating Curve**

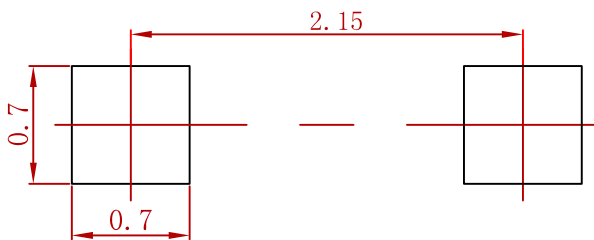


**PACKAGE MECHANICAL DATA**



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	2.550	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°

**Suggested Pad Layout**



- Note:**
1. Controlling dimension: in millimeters.
  2. General tolerance:  $\pm 0.05\text{mm}$ .
  3. The pad layout is for reference purposes only.

**REEL SPECIFICATION**

P/N	PKG	QTY
BAS40WS	SOD-323	3000

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