

# Switching diode

• **Applications**

High speed switching

• **Features**

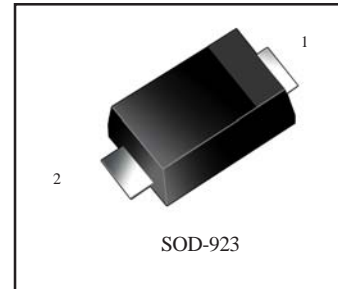
- 1) Extremely small surface mounting type.
- 2) High Speed.
- 3) High reliability.

• **Construction**

Silicon epitaxial planar

• We declare that the material of product compliance with RoHS requirements.

• S- Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable.



**ORDRING INFORMATION**

Device	Marking	Shipping
FDS160F	3	8000/Tape&Reel

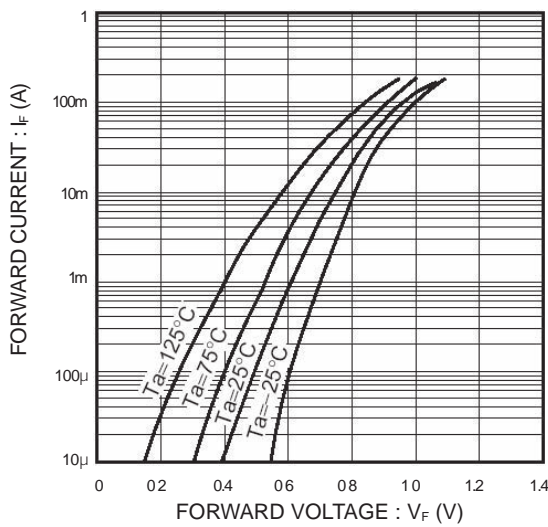
**ABSOLUTE MAXIMUM RATINGS (Ta = 25°C)**

Parameter	Symbol	Limits	Unit
Peak reverse voltage	$V_{RM}$	90	V
DC reverse voltage	$V_R$	80	V
Peak forward current	$I_{FM}$	225	mA
Mean rectifying current	$I_O$	100	mA
Surge current (1s)	$I_{surge}$	500	mA
Junction temperature	$T_J$	125	°C
Storage temperature	$T_{slg}$	- 55 ~ +125	°C

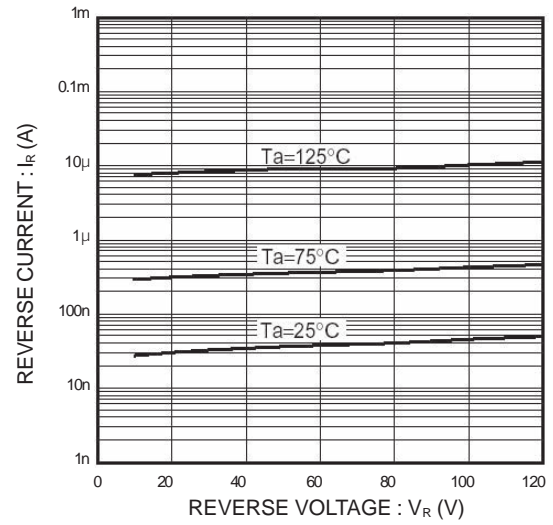
**ELECTRICAL CHARACTERISTICS (Ta = 25°C)**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	$V_F$	-	-	1.2	V	$I_F=100mA$
Reverse current	$I_R$	-	-	0.1	$\mu A$	$V_R=80V$
Capacitance between terminals	$C_T$	-	0.72	3.0	pF	$V_R=0.5V, f=1MHz$
Reverse recovery time	$t_{rr}$	-	-	4	ns	$V_R=6V, I_F=10mA, R_L=100$

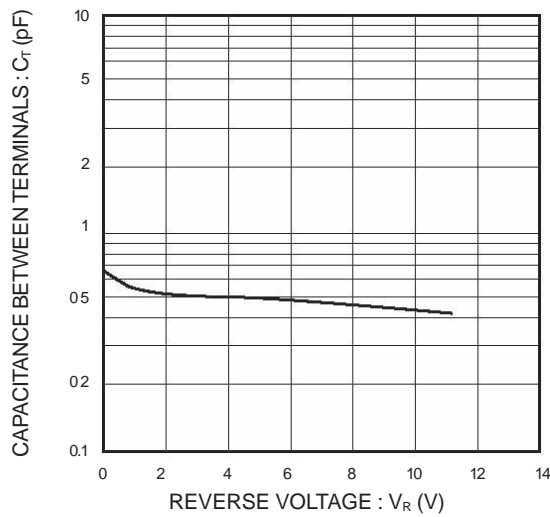
## ELECTRICAL CHARACTERISTIC CURVES (Ta = 25°C)



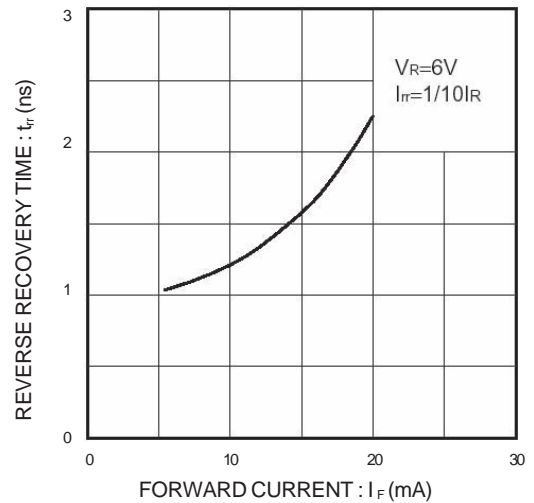
**Fig.1 Forward characteristics**



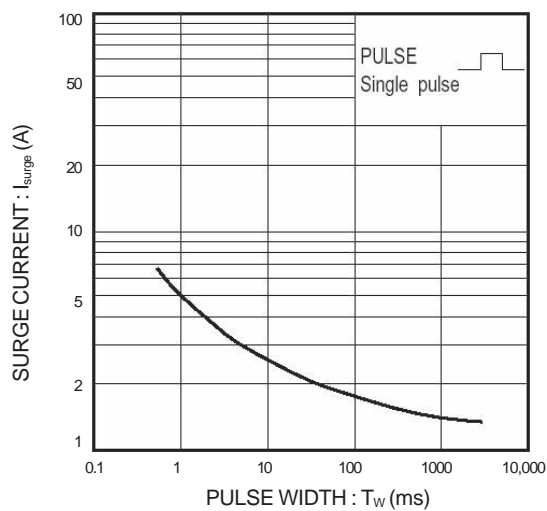
**Fig.2 Reverse characteristics**



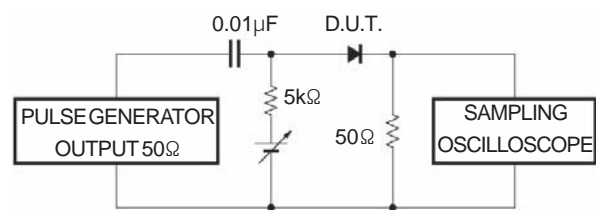
**Fig.3 Capacitance between terminals**



**Fig.4 Reverse recovery time characteristics**

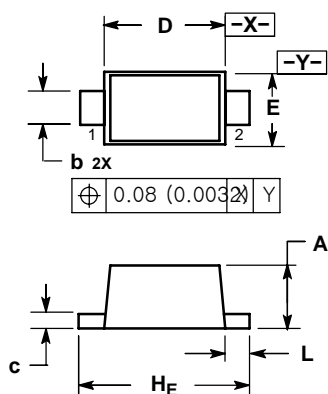


**Fig.5 Surge current characteristics**



**Fig.6 Reverse recovery time ( $t_r$ ) measurement circuit**

## SOD-923

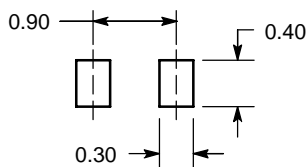


**NOTES:**

1. DIMENSION NG AND TOLERANC NG PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILL METERS.
3. MAX MUM LEAD THICKNESS NCLUDES LEAD FINISH THICKNESS. M N MUM LEAD THICKNESS IS THE M N MUM THICKNESS OF BASE MATERIAL.

DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.34	0.37	0.40	0.013	0.015	0.016
b	0.15	0.20	0.25	0.006	0.008	0.010
c	0.07	0.12	0.17	0.003	0.005	0.007
D	0.75	0.80	0.85	0.030	0.031	0.033
E	0.55	0.60	0.65	0.022	0.024	0.026
HE	0.95	1.00	1.05	0.037	0.039	0.041
L	0.05	0.10	0.15	0.002	0.004	0.006

**SOLDERING FOOTPRINT\***



DIMENSIONS: MILL METERS