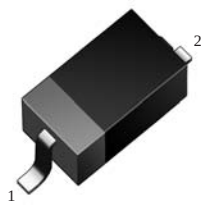
Switching diode

- **Applications**
  High speed switching
- **Features**
  1) Small surface mounting type.
  2) High Speed. (t_{rr} = 1.2ns Typ.)
  3) High reliability with high surge current handing capability.
  4) Pb-Free package is available.
- **Construction**
  Silicon epitaxial planar



SC-76 / SOD-323
USC

CATHODE ANODE

- **Device Marking and Ordering Information**

Device	Marking	Shipping
FDS160	5D	3000/Tape&Reel

ABSOLUTE MAXIMUM RATINGS (Ta = 25 C)

Parameter	Symbol	Limit	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
Power Dissipation	P_D *	200	mW
Storage temperature	T_{stg}	– 55 ~ +150	C
Storage temperature	T_{stg}	– 55 ~ +150	C

* : Mounted on a glass epoxy circuit board of 20×20mm,
pad dimension of 4×4mm.

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	μA	V_R=80V
Capacitance between terminals	C_T	–	–	3.0	pF	V_R=0.5V , f=1MHz
Reverse recovery time	t_{rr}	–	–	4	ns	V_R=6V , I_F=10mA , R_L=100Ω

ELECTRICAL CHARACTERISTIC CURVES

(Ta = 25°C)

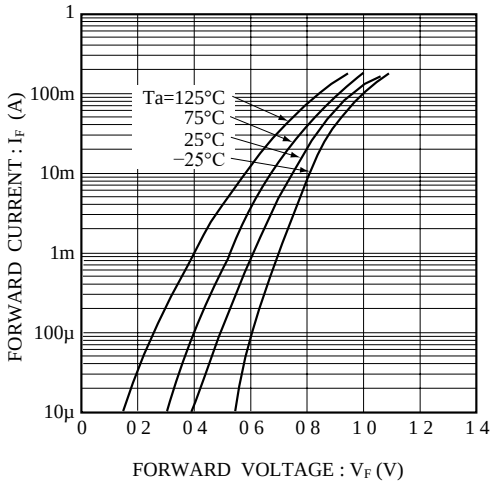


Fig.1 Forward characteristics

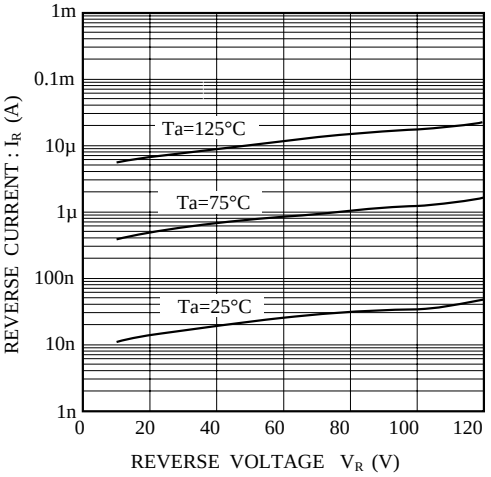


Fig.2 Reverse characteristics

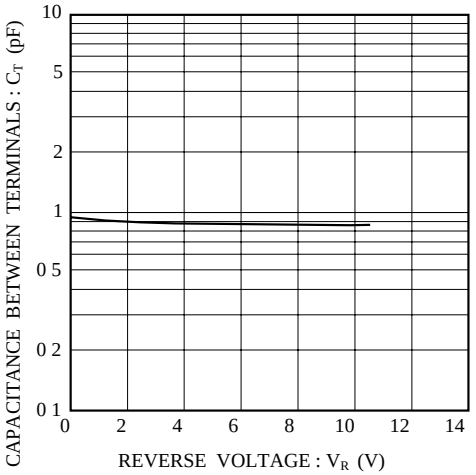


Fig.3 Capacitance between terminals characteristics

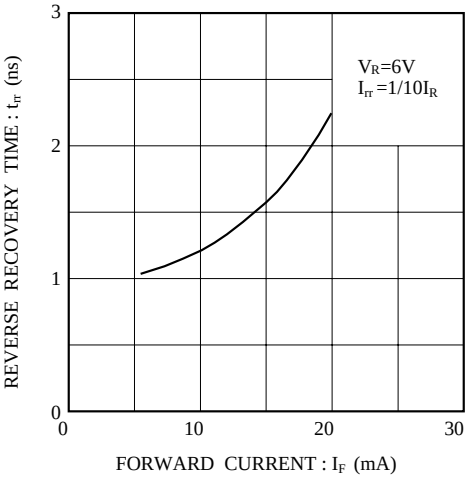


Fig.4 Reverse recovery time characteristics

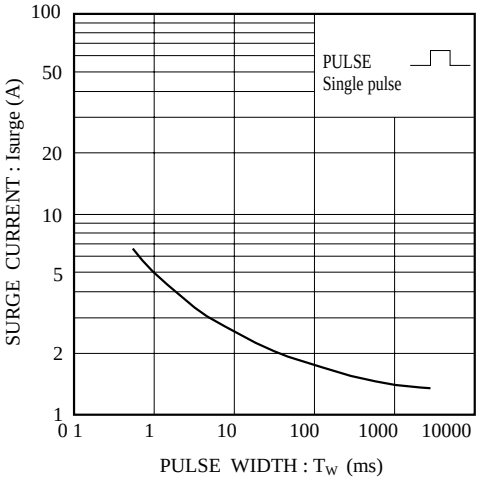


Fig.5 Surge current characteristics

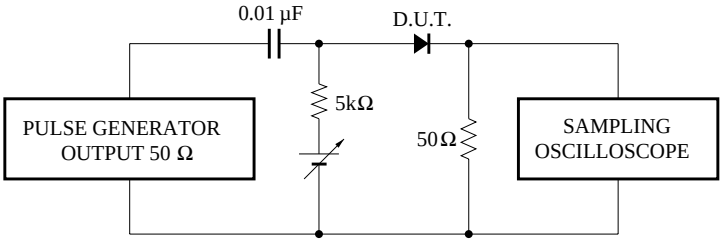


Fig.6 Reverse recovery time (t_{rr}) measurement circuit

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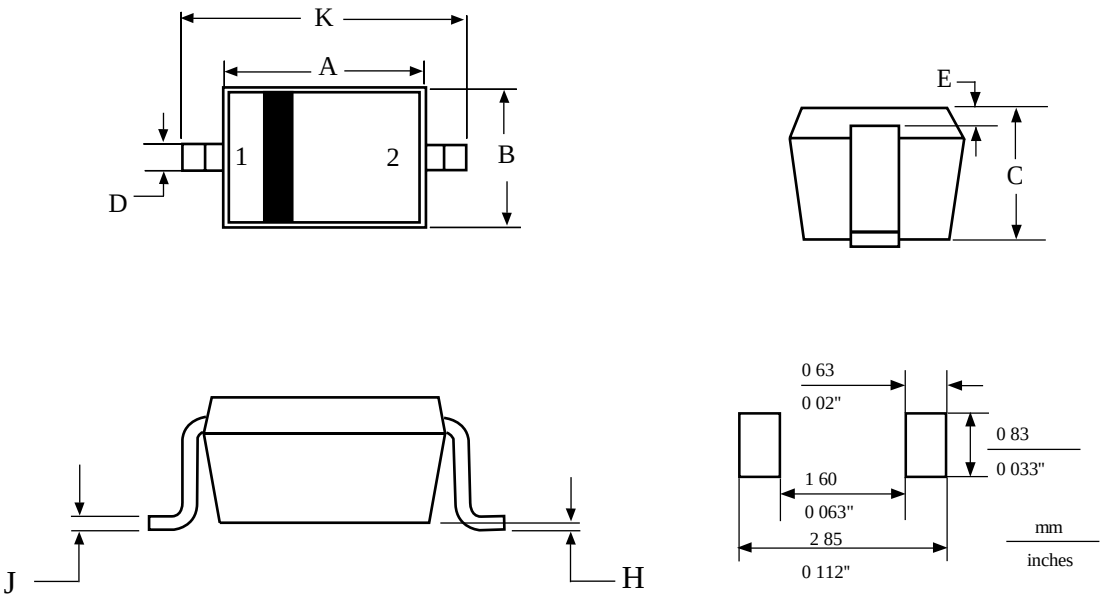

NOTES:

1. DIMENSIONING AND TOLERANCING
   PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1 60	1 80	0 063	0 071
b	1 15	1 35	0 045	0 053
C	0 8	1 00	0 031	0 039
D	0 25	0 40	0 010	0 016
E	0 15 REF		0 006 REF	
H	0 00	0 10	0 000	0 004
J	0 089	0 177	0 0035	0 0070
K	2 30	2 70	0 091	0 1060

PIN:1:CATHODE
2:ANODE