Switching diode

- **Applications**

  High speed switching

- **Features**

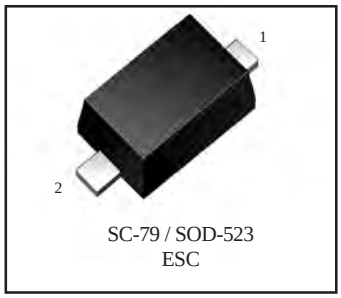
  1) Extremely small surface mounting type.

  2) High Speed. (t_{rr} = 1.2ns Typ.)

  3) High reliability.

- **Construction**

  Silicon epitaxial planar



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ESC

CATHODE ANODE

- **Device Marking and Ordering Information**

Device	Marking	Shipping
FDS160ET1G	A	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 (Note1) Ta=25℃	P_D	150	mW
Junction temperature	T_J	125	C
Storage temperature	T_{stg}	– 55 ~ +125	C

Note1: FR-5 Mimum PAD.

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	–	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=100Ω

ELECTRICAL CHARACTERISTIC CURVES

(Ta = 25°C)

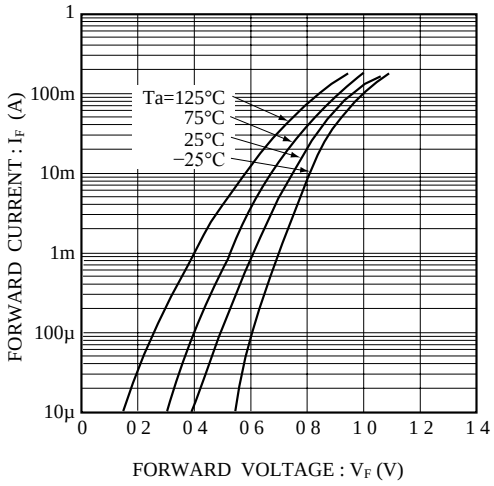

Fig.1 Forward characteristics

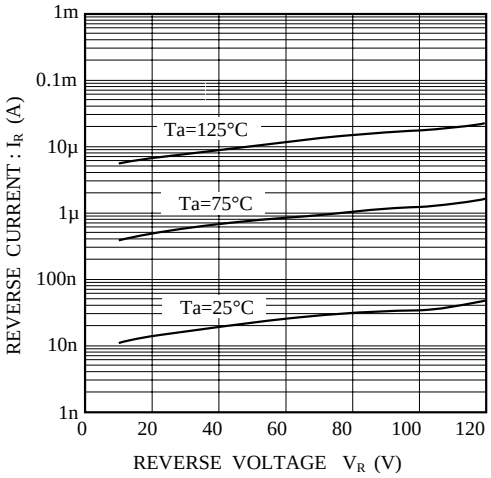

Fig.2 Reverse characteristics

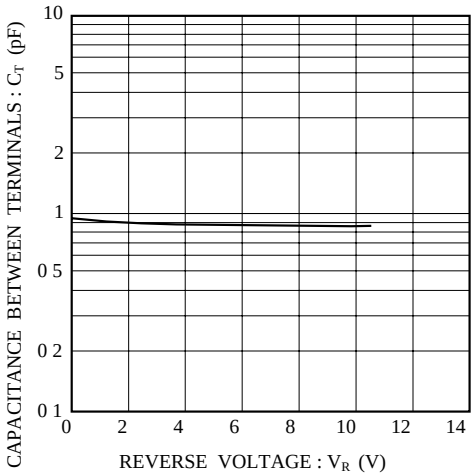

Fig.3 Capacitance between terminals characteristics

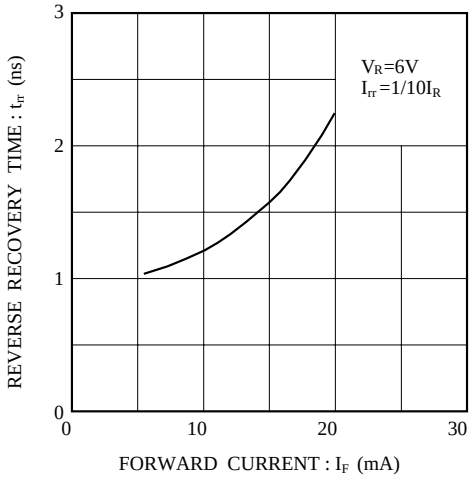

Fig.4 Reverse recovery time characteristics

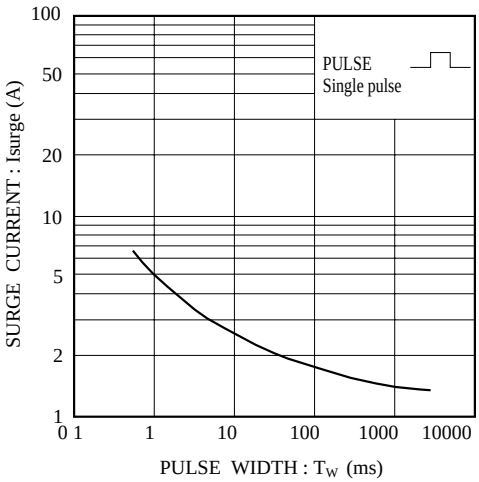

Fig.5 Surge current characteristics

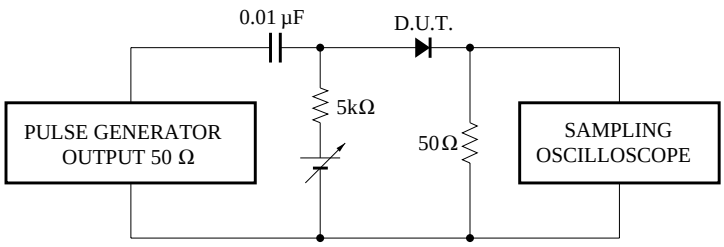

Fig.6 Reverse recovery time (t_{rr}) measurement circuit

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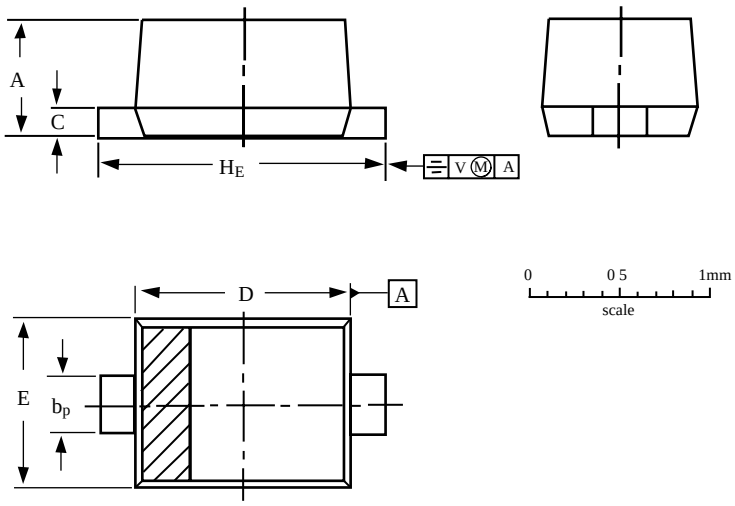

0.7	0.35	0.2	1.3	0.9
0.5	0.25	0.1	1.1	0.7

DIMENSIONS (mm are the original dimensions)

UNIT	A	b_p	c	D	E	H_E	V
m m	0.7	0.35	0.2	1.3	0.9	1.7	0.15
	0.5	0.25	0.1	1.1	0.7	1.5	

Note

1. The marking bar indicates the cathode.

OUTLINE VERSION	REFERENCES			EUROPEAN PROJECTION	ISSUE DATE
	IEC	JEDEC	EIAJ		
SOD523			SC-79		98-11-25