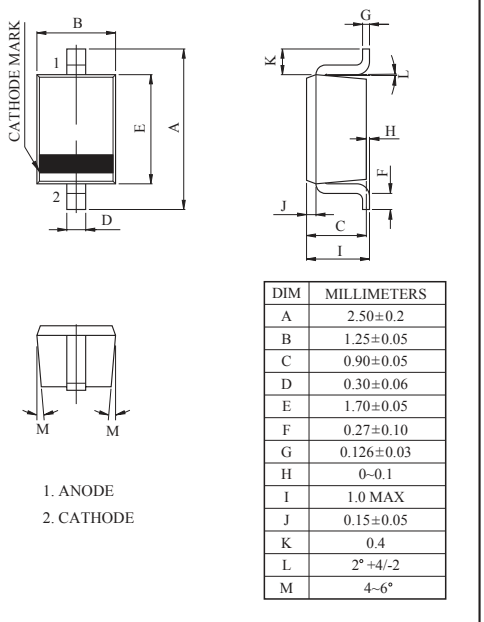
KDS160

SILICON EPITAXIAL PLANAR DIODE

ULTRA HIGH SPEED SWITCHING APPLICATION.



DIM	MILLIMETERS
A	2.50±0.2
B	1.25±0.05
C	0.90±0.05
D	0.30±0.06
E	1.70±0.05
F	0.27±0.10
G	0.126±0.03
H	0~0.1
I	1.0 MAX
J	0.15±0.05
K	0.4
L	2° +4/-2
M	4~6°

USC

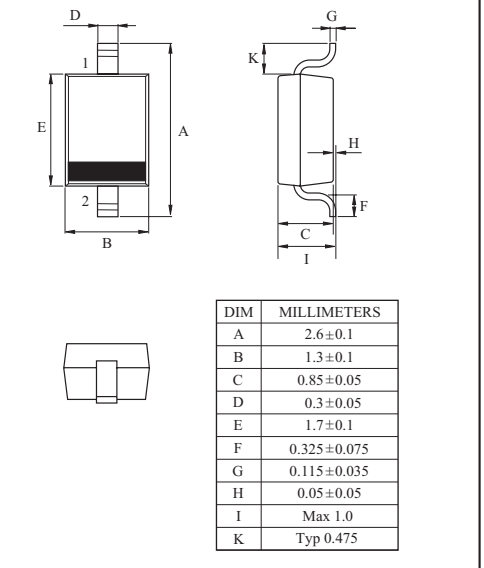
FEATURES

- Small Package : USC.
- Low Forward Voltage.
- Fast Reverse Recovery Time.
- Small Total capacitance.
- Suffix **U** : Qualified to AEC-Q101.
  ex) KDS160-RTK/H**U**
- Suffix **A** : USC(1) Package
  ex) KDS160-RTK/P**A**

MAXIMUM RATING (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Maximum (Peak) Reverse Voltage	V_{RM}	85	V
Reverse Voltage	V_R	80	V
Maximum (Peak) Forward Current	I_{FM}	300	mA
Average Forward Current	I_O	100	mA
Surge Current (10mS)	I_{FSM}	2	A
Power Dissipation	P_D *	200	mW
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55～150	℃

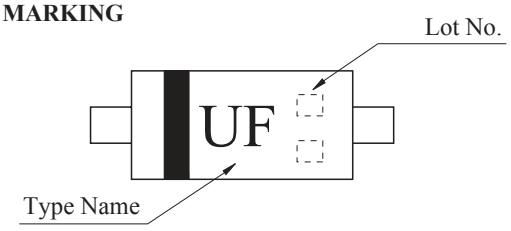
* : Mounted on a glass epoxy circuit board of 20×20mm,
pad dimension of 4×4mm.



DIM	MILLIMETERS
A	2.6±0.1
B	1.3±0.1
C	0.85±0.05
D	0.3±0.05
E	1.7±0.1
F	0.325±0.075
G	0.115±0.035
H	0.05±0.05
I	Max 1.0
K	Typ 0.475

USC(1)

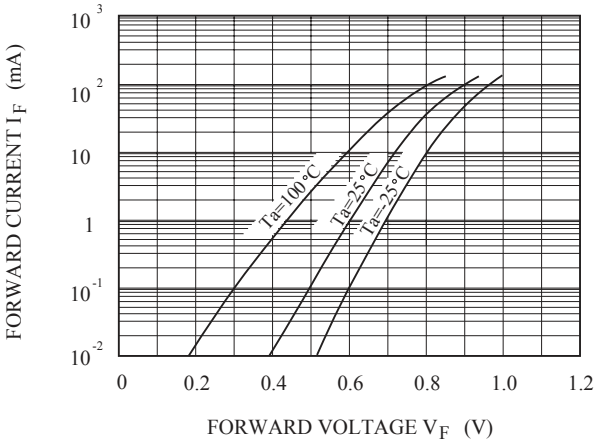
MARKING



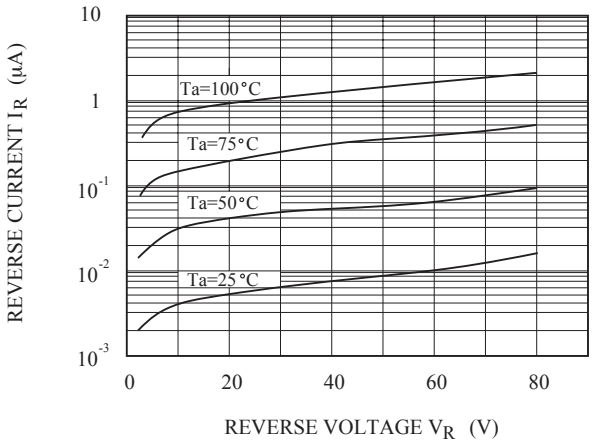
ELECTRICAL CHARACTERISTICS (Ta=25℃)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Forward Voltage	$V_{F(1)}$	I_F=1mA	-	0.60	-	V
	$V_{F(2)}$	I_F=10mA	-	0.72	-	
	$V_{F(3)}$	I_F=100mA	-	0.90	1.20	
Reverse Current	I_R	V_R=80V	-	-	0.5	μA
Total Capacitance	C_T	V_R=0V, f=1MHz	-	0.9	3.0	pF
Reverse Recovery Time	t_{rr}	I_F=10mA	-	1.6	4.0	nS

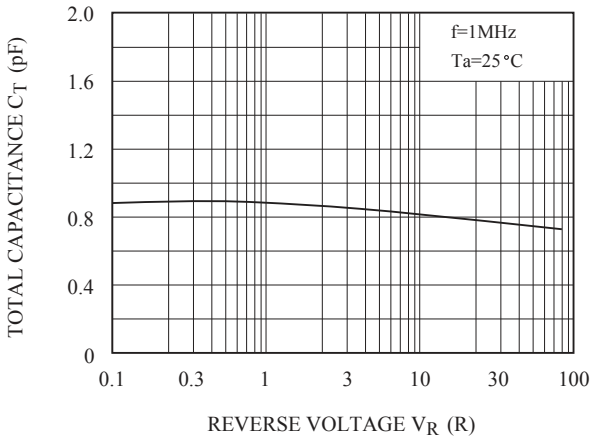
I_F - V_F



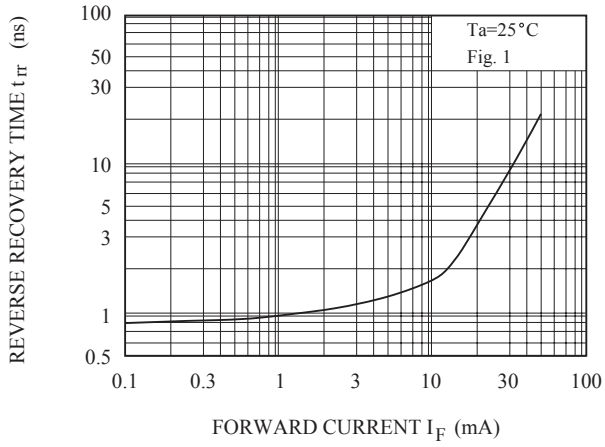
I_R - V_R



C_T - V_R



t_{rr} - I_F



I_{FSM} - t

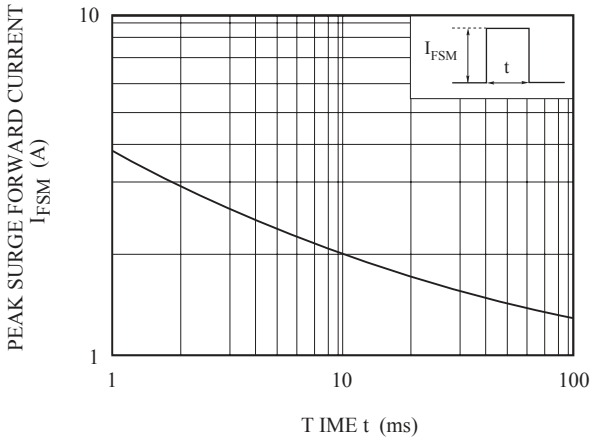
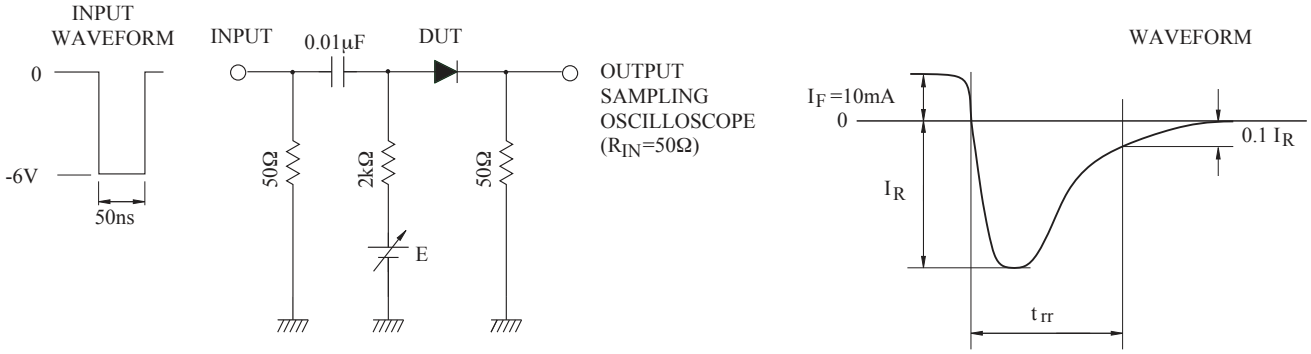


Fig. 1. REVERSE RECOVERY TIME(t_{rr}) TEST CIRCUIT



PULSE GENERATOR
(R_{OUT}=50Ω)