KI SEMICONDUCTOR

1S2076A

SMALL SIGNAL SWITCHING DIODE

REVERSE VOLTAGE : 60 V
CURRENT: 0.15 A

FEATURES

◇ Silicon epitaxial planar diode

◇ High speed switching diode

◇ 500 mW power dissipation

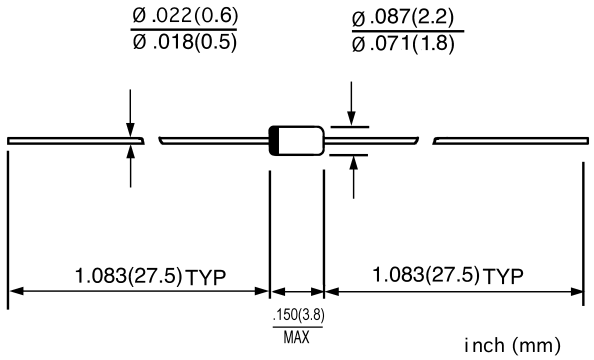
MECHANICAL DATA

◇ Case: DO-35, glass case

◇ Polarity: Color band denotes cathode

◇ Weight: 0.004 ounces, 0.13 grams

DO-35(GLASS)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.

MAXIMUM RATINGS

		1S2076A	UNITS
Reverse voltage	V_R	60	V
Peak reverse voltage	V_{RM}	70	V
Average forw ard rectified current half w ave rectification w ith resist.load @T_A=25℃ and f≥50Hz	I_{AV}	150	mA
Forw ard surge current @ t<1s and T_J=25℃	I_{FSM}	1.0	A
Pow er dissipation @ T_A=25℃	P_{tot}	250[1)]	mW
Junction temperature	T_J	175	℃
Storage temperature range	T_{STG}	-55 --- +175	℃

1)Valid prov ided that leads at a distance of 8 mm from case are kept at ambient temperature.

ELECTRICAL CHARACTERISTICS

		MIN	TYP	MAX	UNITS
Forw ard voltage at I_F=10mA	V_F	-	-	0.8	V
Leakage current @ V_R=30V	I_R	-	-	0.1	μA
Capacitance @ V_F=V_R=1V,f=1MHz	C_J	-	-	3.0	pF
Reverse recovery time from I_F=I_R=10mA to I_{rr}=1mA	t_{rr}	-	-	8.0	ns

FIG.1 -- ADMISSIBLE POWER DISSIPATION VERSUS AMBIENT TEMPERATURE

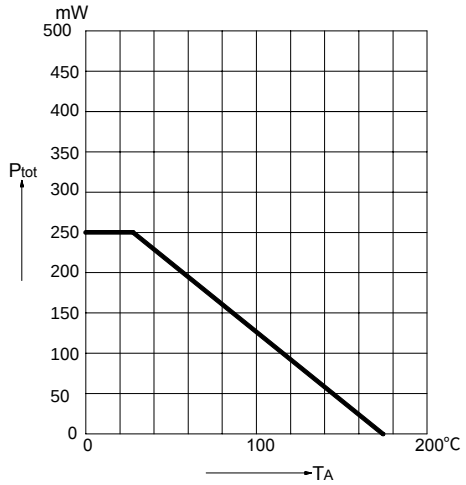


FIG.2 -- FORWARD CHARACTERISTICS

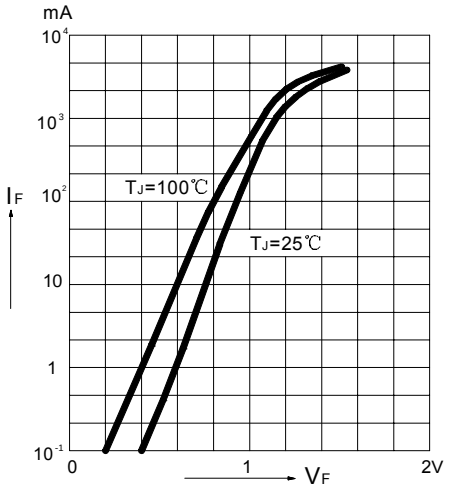


FIG.3 -- ADMISSIBLE REPETITIVE PEAK FORWARD CURRENT VERSUS PULSE DURATION

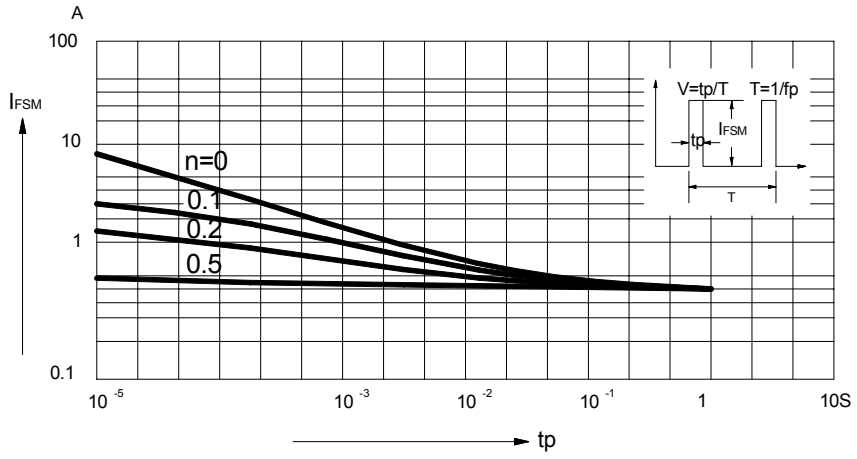


FIG.4 – RECTIFICATION EFFICIENCY MEASUREMENT CIRCUIT

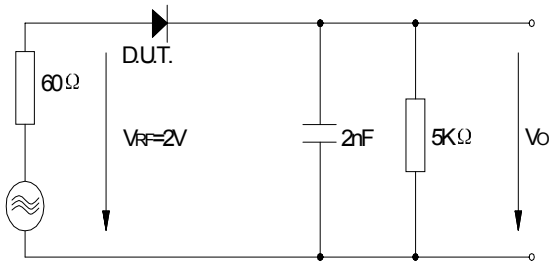


FIG.5 – RELATIVE CAPACITANCE VERSUS VOLTAGE

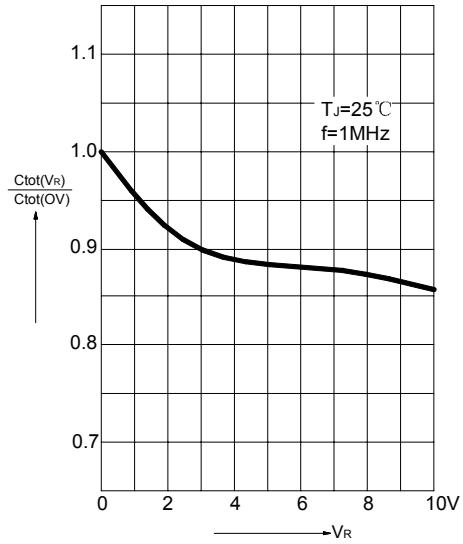


FIG.6 – LEAKAGE CURRENT VERSUS JUNCTION TEMPERATURE

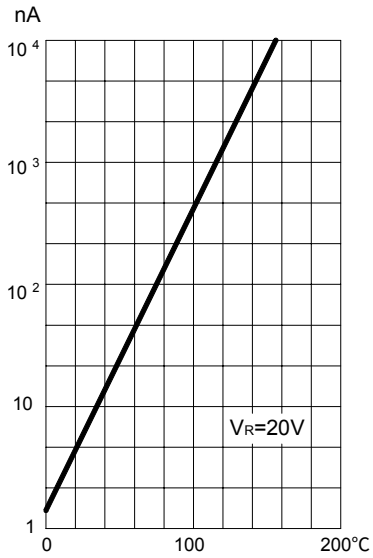


FIG.7 – DYNAMIC FORWARD RESISTANCE VERSUS FORWARD CURRENT

