

SMALL SIGNAL SWITCHING DIODE

VOLTAGE RANGE: 50 V

CURRENT: 150 m A

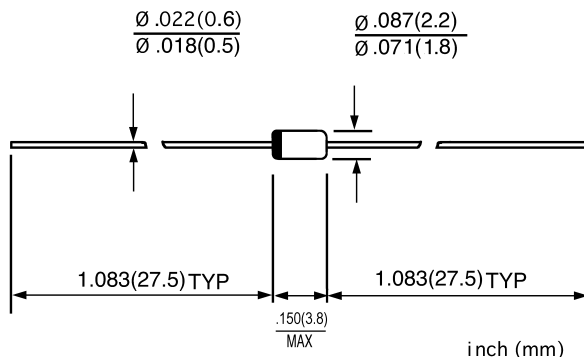
FEATURES

- ◇ 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



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

MAXIMUM RATINGS

		1N4150	UNITS
Reverse voltage	V_R	50	V
Peak reverse voltage	V_{RM}	50	V
Average forward rectified current $V_R=0V$	I_O	150	mA
Forward surge current at $t=1\mu s$	I_{FSM}	4.0	A
Power dissipation	P_{tot}	500	mW
Thermal resistance junction to ambient	R_{thja}	500	K/W
Junction temperature	T_j	175	°C
Storage temperature range	T_{STG}	-65 --- + 175	°C

ELECTRICAL CHARACTERISTICS

		MIN.	MAX.	UNITS
Forward voltage at $I_F=1mA$	V_F	0.54	0.62	V
$I_F=10mA$		0.66	0.74	
$I_F=50mA$		0.76	0.86	
$I_F=100mA$		0.82	0.92	
$I_F=200mA$		0.87	1.0	
Leakage current @ $V_R=50V, T_J=25^\circ C$	I_R	-	0.1	μA
$V_R=50V, T_J=150^\circ C$		-	100	
Capacitance at $V_R=0V, f=1MHz, V_{HF}=50mV$	C_{tot}	-	2.5	pF
Reverse recovery time $I_F=I_R=(10to100mA), i_R=0.1 \times I_R$ $R_L=100\Omega$	t_{rr}	-	4.0	ns

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FIG.1 -- ADMISSIBLE POWER DISSIPATION
VERSUS AMBIENT TEMPERATURE

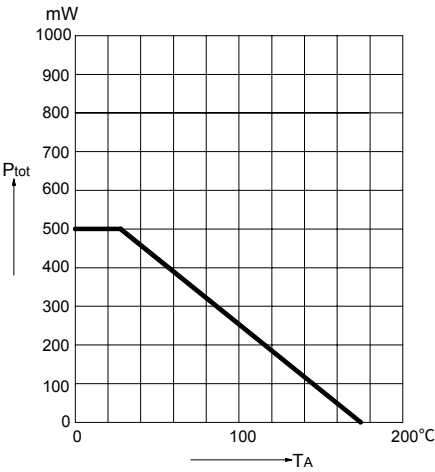


FIG.2 -- FORWARD CHARACTERISTICS

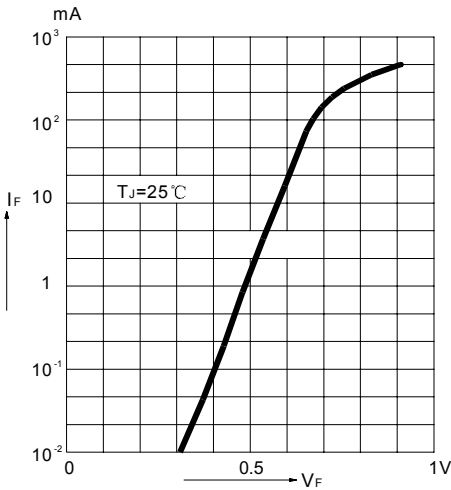


FIG.3 -- LEAKAGE CURRENT VERSUS JUNCTION TEMPERATURE

