

SMALL SIGNAL SWITCHING DIODE

REVERSE VOLTAGE: 75 V

CURRENT : 75 mA

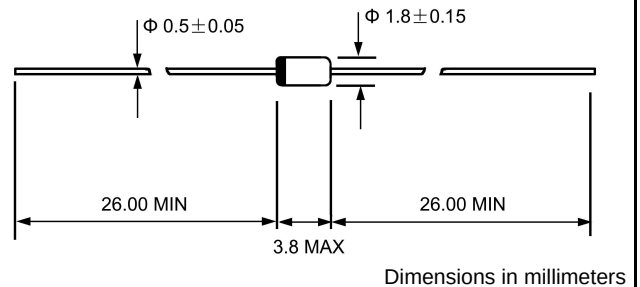
FEATURES

- ◇ Glass sealed envelope. (MSD)
- ◇ $V_{RM}=100V$ guaranteed
- ◇ High reliability

MECHANICAL DATA

- ◇ Case: DO-35, glass case
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.004 ounces, 0.13 grams

DO - 35



MAXIMUM RATINGS (Ratings at 25°C ambient temperature unless otherwise specified.)

		1N914,1N914A,1N914B	UNITS
Maximum DC reverse voltage	V_R	75	V
Maximum recurrent peak reverse voltage	V_{RM}	100	V
Average forward rectified current half wave rectification with resistive load	I_O	75	mA
Forward surge current $t < 1ms$	I_{FSM}	4.0	A
$t = 1ms$		1.0	
$t = 1s$		0.5	
Power dissipation (note)	P_{tot}	250	mW
Junction temperature	T	175	°C
Storage temperature range	T_{STG}	- 65 --- + 175	°C

Note: Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature.

ELECTRICAL CHARACTERISTICS (Ratings at 25°C ambient temperature unless otherwise specified.)

		Min	Typ	Max	UNITS
Forward voltage @ 1N914, 1N914A, $I_F=10mA$	V_F	-	-	1.0	V
1N914B, $I_F=5mA$		0.62	-	0.72	
1N914B, $I_F=100mA$		-	-	1.0	
Leakage current @ $V_R=20V$	I_R	-	-	25	nA
@ $V_R=75V$		-	-	5	μA
@ $V_R=20V, T_J=150^\circ C$		-	-	50	μA
Capacitance @ $V_R=0V, f=1MHz$	C_{tot}	-	-	4	pF
Reverse recovery time @ $I_F=10mA, I_R=10mA, R_L=100\Omega$, measured at $I_R=1mA$	t_{rr}	-	-	8	ns
Voltage rise when switching on tested with 50mA pulses $t_r=20ns$	V_{fr}	-	-	2.5	V
Thermal resistance junction to ambient (note)	$R_{\theta JA}$	-	-	500	°C/W

Note: Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature.

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FIG.1 -- ADMISSIBLE POWER DISSIPATION
VERSUS AMBIENT TEMPERATURE

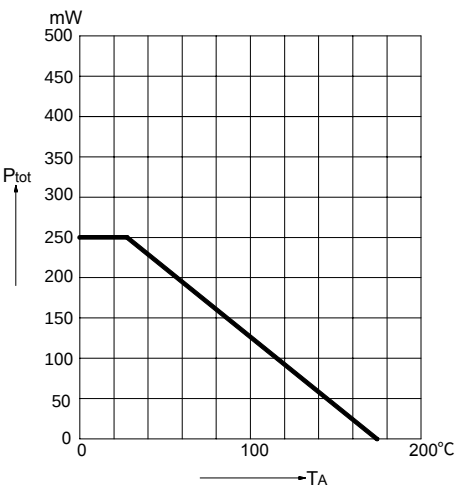


FIG.2 -- FORWARD CHARACTERISTICS

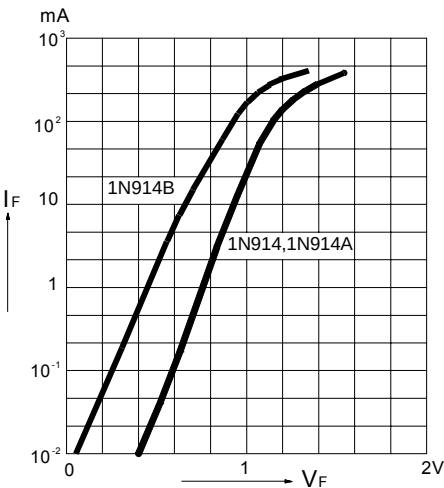


FIG.3 -- ADMISSIBLE REPETITIVE PEAK FORWARD CURRENT VERSUS PULSE DURATION

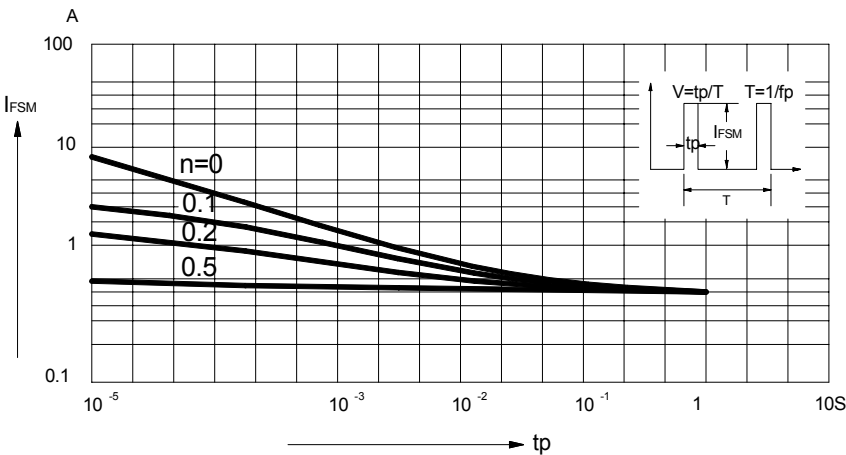


FIG.4 – RECTIFICATION EFFICIENCY
MEASUREMENT CIRCUIT

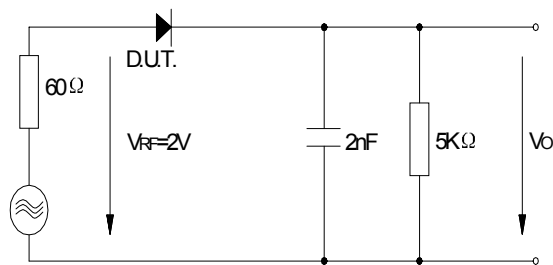


FIG.5 – RELATIVE CAPACITANCE VERSUS
VOLTAGE

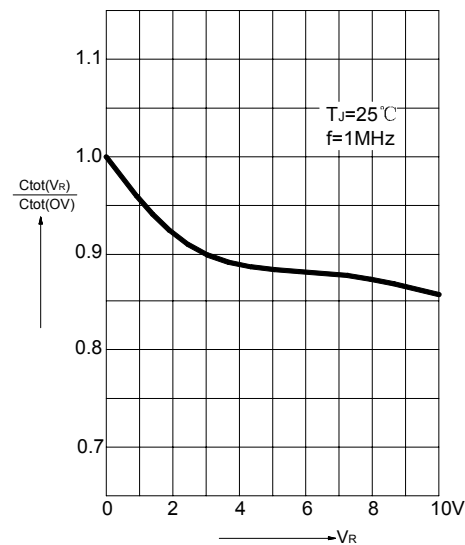


FIG.6 – LEAKAGE CURRENT VERSUS JUNCTION
TEMPERATURE

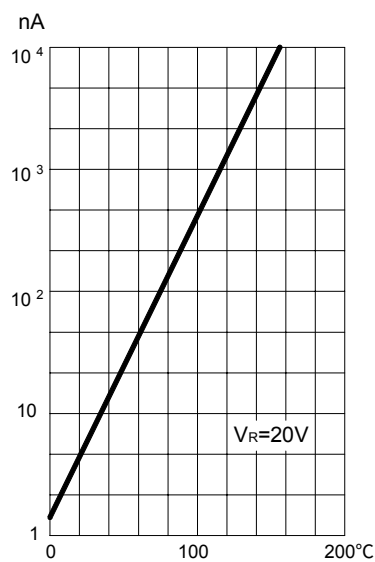


FIG.7 – DYNAMIC FORWARD RESISTANCE
VERSUS FORWARD CURRENT

