



# 1N914, 1N914A, 1N914B

## SMALL SIGNAL SWITCHING DIODE

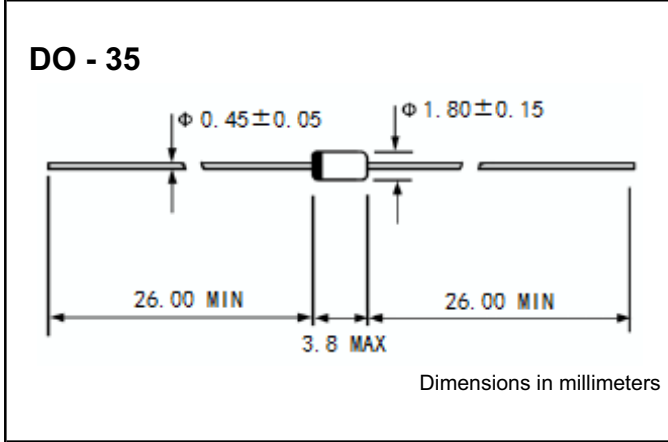
**REVERSE VOLTAGE: 75 V**  
**CURRENT: 75 mA**

**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



## 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	$t < 1ms$	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

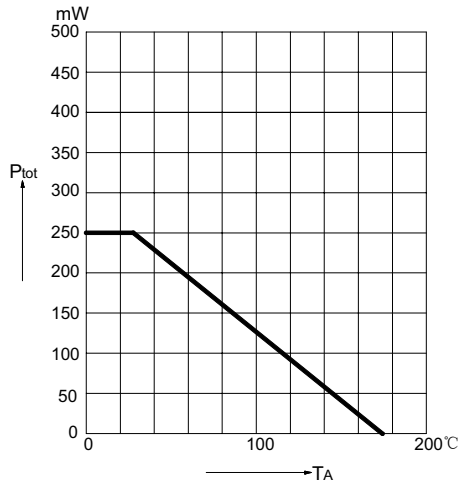
Note: Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature.

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

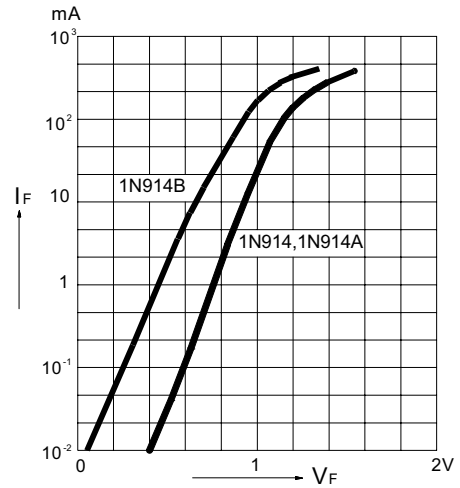
		Min	Typ	Max	UNITS	
Forward voltage @ 1N914, 1N914A, $I_F=10mA$ 1N914B, $I_F=5mA$ 1N914B, $I_F=100mA$	$V_F$	- 0.62 -	- - -	1.0 0.72 1.0	V	
	Leakage current @ $V_R=20V$ @ $V_R=75V$ @ $V_R=20V, T_j=150°C$	$I_R$	-	-	25	nA
			-	-	5	μA
-			-	50	μA	
Capacitance @ $V_R=0V, f=1MHz$	$C_{tot}$	-	-	4	pF	
Reverse recovery time @ $I_F=10mA, I_R=10mA,$ $R_L=100Ω$ , 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)	$R_{θjA}$	-	-	500	°C/W	

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

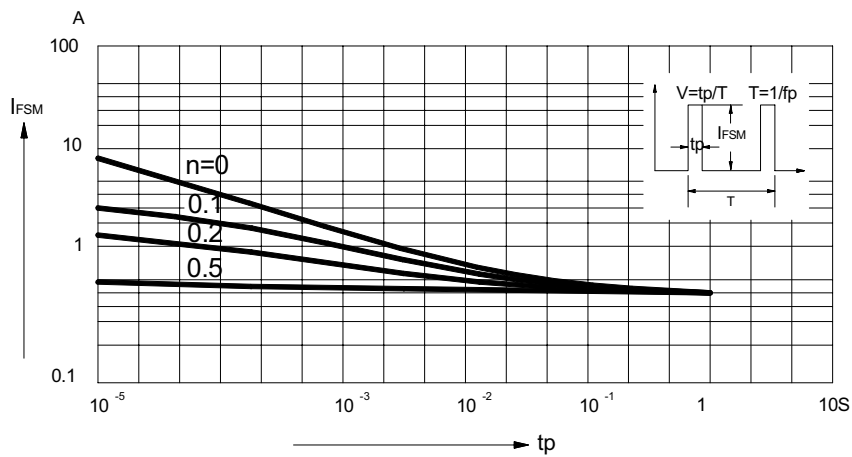
**FIG.1 – ADMISSIBLE POWER DISSIPATION  
VERSUS AMBIENT TEMPERATURE**



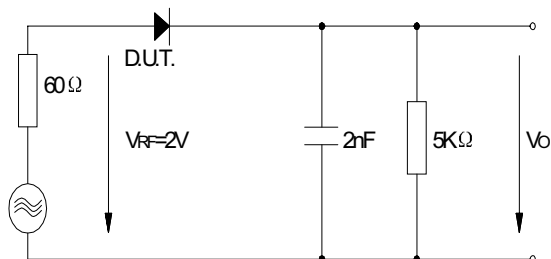
**FIG.2 – FORWARD CHARACTERISTICS**



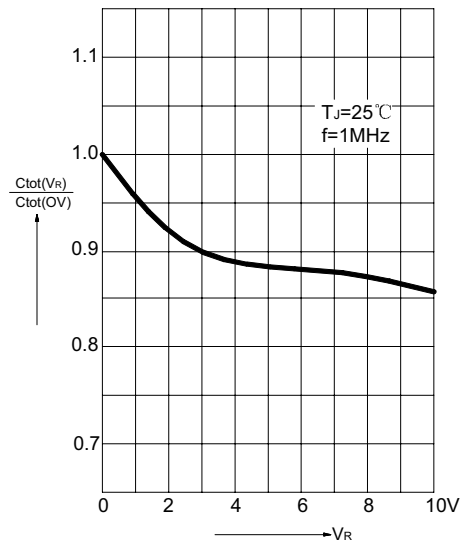
**FIG.3 – ADMISSIBLE REPETITIVE PEAK FORWARD CURRENT VERSUS PULSE DURATION**



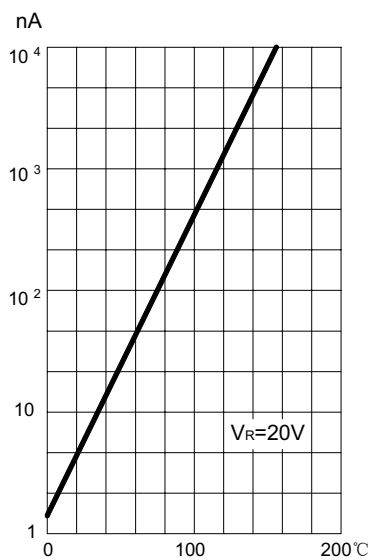
**FIG.4 – RECTIFICATION EFFICIENCY MEASUREMENT CIRCUIT**



**FIG.5 – RELATIVE CAPACITANCE VERSUS VOLTAGE**



**FIG.6 – LEAKAGE CURRENT VERSUS JUNCTION TEMPERATURE**



**FIG.7 – DYNAMIC FORWARD RESISTANCE VERSUS FORWARD CURRENT**

