

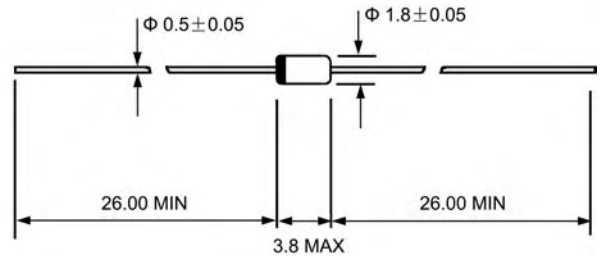
# 1N914/1N914A/1N914B

Small Signal Switching Diodes

**REVERSE VOLTAGE: 75 V**

**CURRENT : 75 mA**

**DO - 35**



Dimensions in millimeters

## 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

Rating at 25°C ambient temperature unless otherwise specified.

		<b>1N914,1N914A,1N914B</b>		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		
Storage temperature range	$T_{STG}$	- 65 --- + 175		

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

## Electrical Characteristics

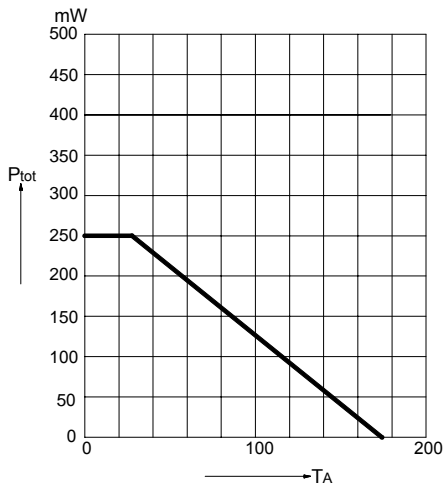
Rating at 25°C ambient temperature unless otherwise specified.

		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	n A
@ $V_R=75V$		-	-	5	$\mu A$
@ $V_R=20V, T_j=150$		-	-	50	$\mu A$
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	/W

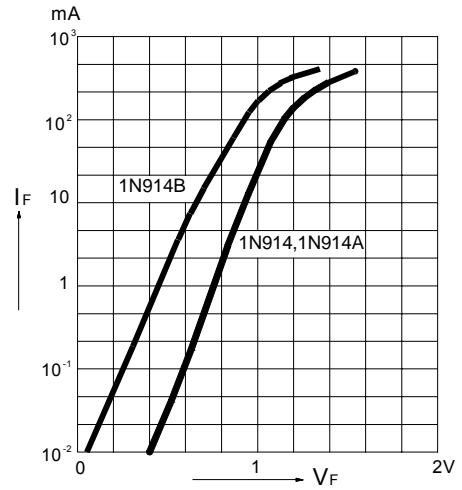
Note:Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature.

## Ratings AND Characteristic Curves

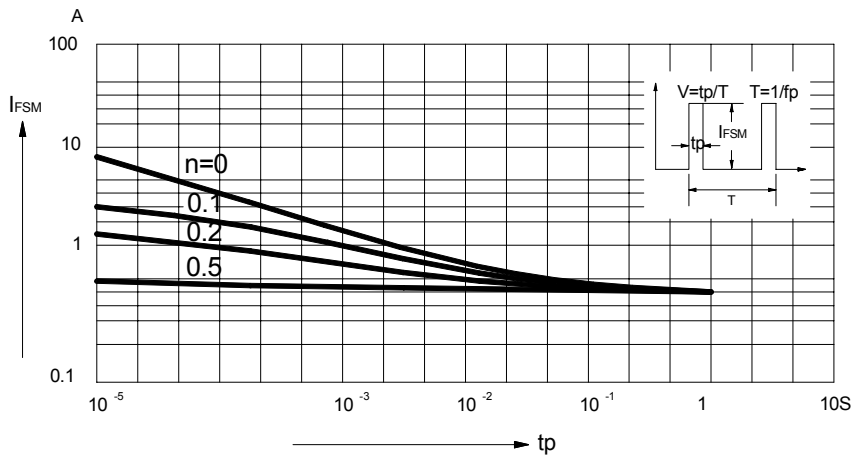
**FIG.1 – ADMISSIBLE POWER DISSIPATION  
VERSUS AMBIENT TEMPERATURE**



**FIG.2 – FORWARD CHARACTERISTICS**

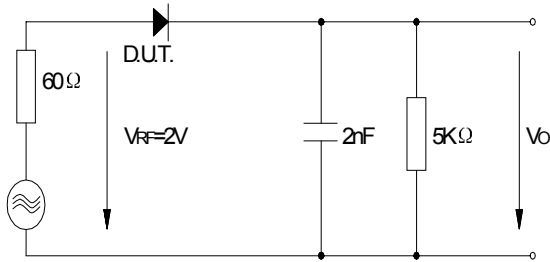


**FIG.3 – ADMISSIBLE REPETITIVE PEAK FORWARD CURRENT VERSUS PULSE DURATION**

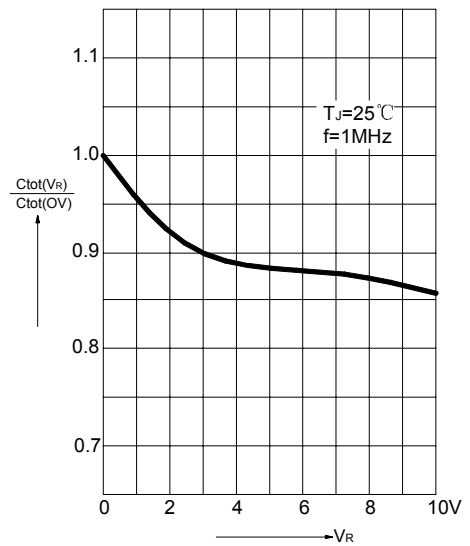


## Ratings AND Characteristic Curves

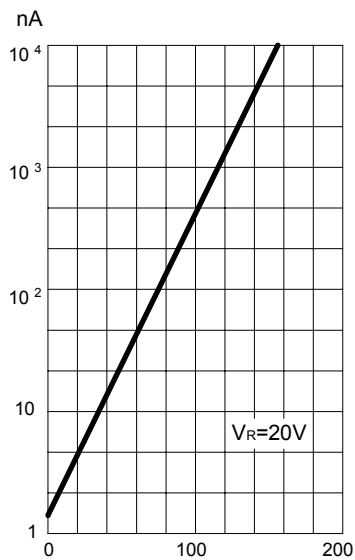
**FIG.4 – RECTIFICATION EFFICIENCY  
MEASUREMENT CIRCUIT**



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



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



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

