

### SMALL SIGNAL SWITCHING DIODE

REVERSE VOLTAGE: 75 V

CURRENT : 75 mA

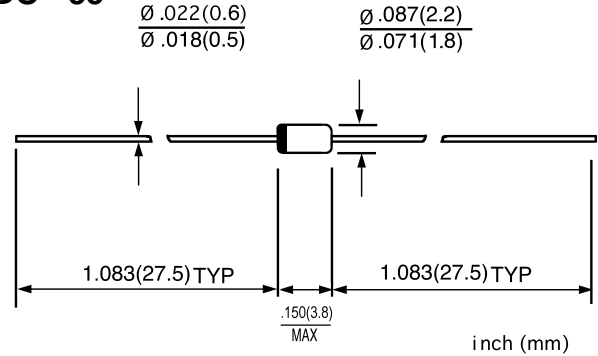
#### FEATURES

- 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 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	$t < 1\text{ms}$	4.0		A
	$t = 1\text{ms}$	1.0		
	$t = 1\text{s}$	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.

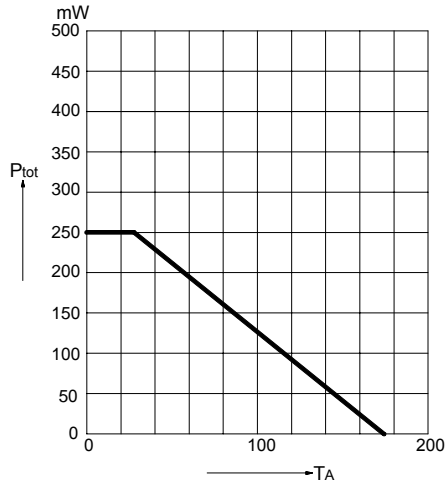
#### ELECTRICAL CHARACTERISTICS (Ratings at 25 ambient temperature unless otherwise specified. )

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

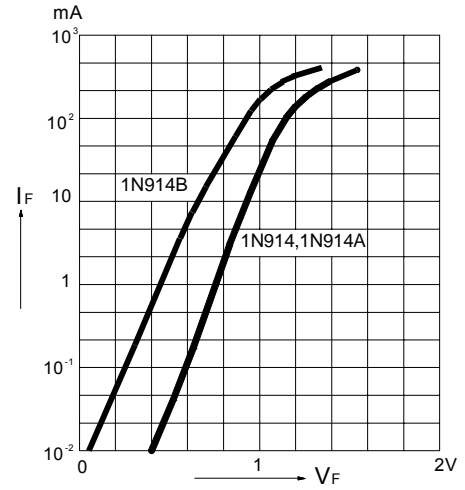
Note: Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature.

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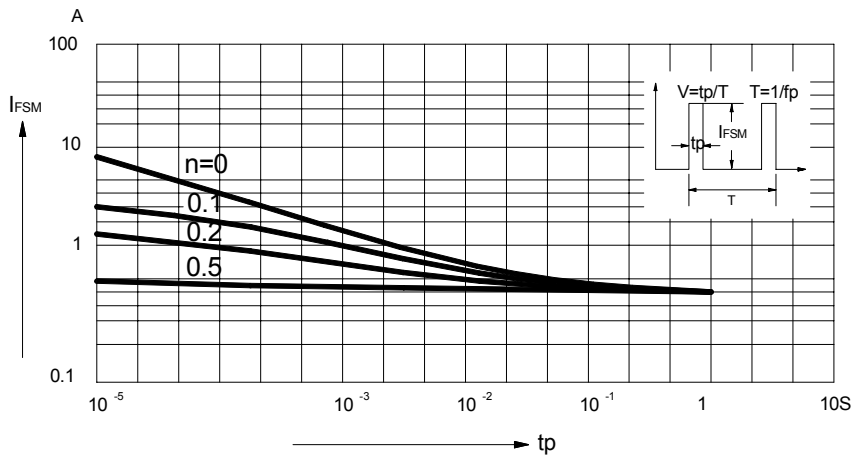
**FIG.1 -- ADMISSIBLE POWER DISSIPATION  
VERSUS AMBIENT TEMPERATURE**



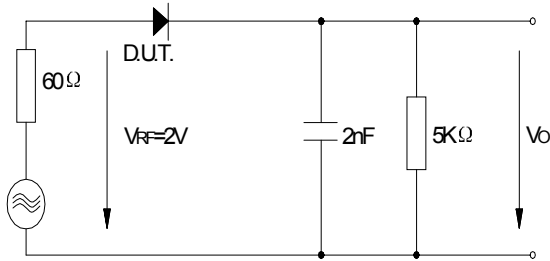
**FIG.2 -- FORWARD CHARACTERISTICS**



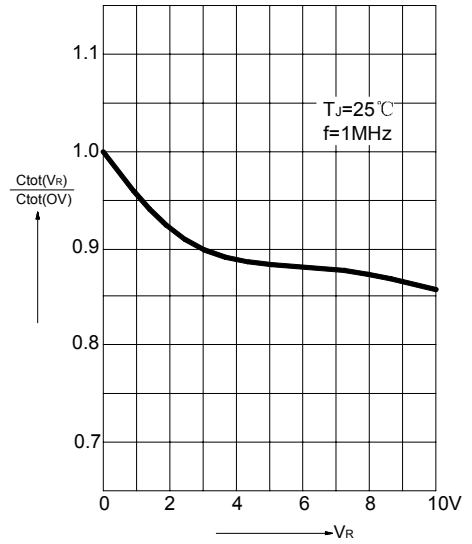
**FIG.3 -- ADMISSIBLE REPETITIVE PEAK FORWARD CURRENT VERSUS PULSE DURATION**



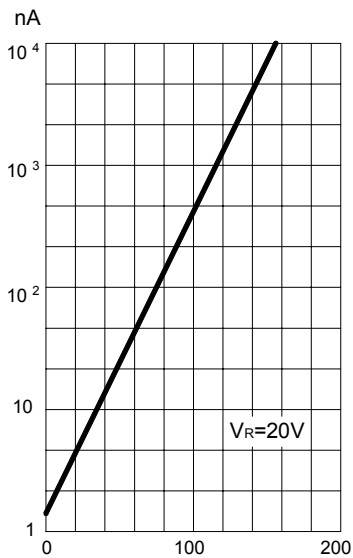
**FIG.4 – RECTIFICATION EFFICIENCY MEASUREMENT CIRCUIT**



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



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



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

