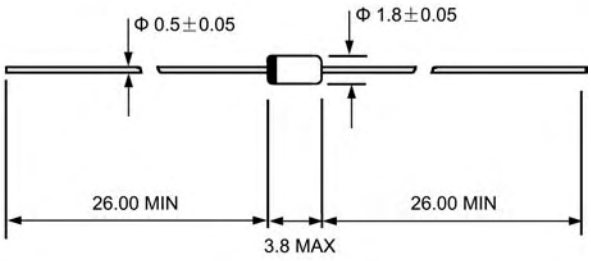
1N914/1N914A/1N914B

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.

		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 t=1ms t=1s	I_{FSM}	4.0 1.0 0.5	A
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 Rating at 25°C ambient temperature unless otherwise specified.

		Min	Typ	Max	UNITS
Forw ard 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 5 50	n A µA µA
Capacitance @ V_R=0V,f=1MH$_Z$	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 w hen sw itching on tested w ith 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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Ratings AND Charactieristic Curves

FIG.1 -- ADMISSIBLE POWER DISSIPATION VERSUS AMBIENT TEMPERATURE

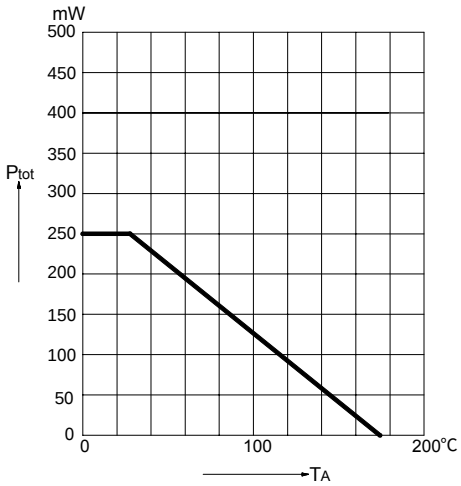


FIG.2 -- FORWARD CHARACTERISTICS

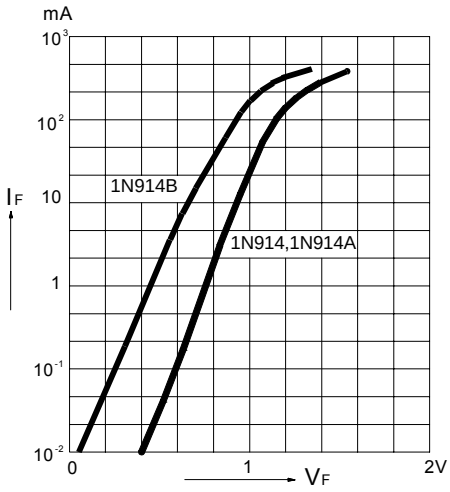
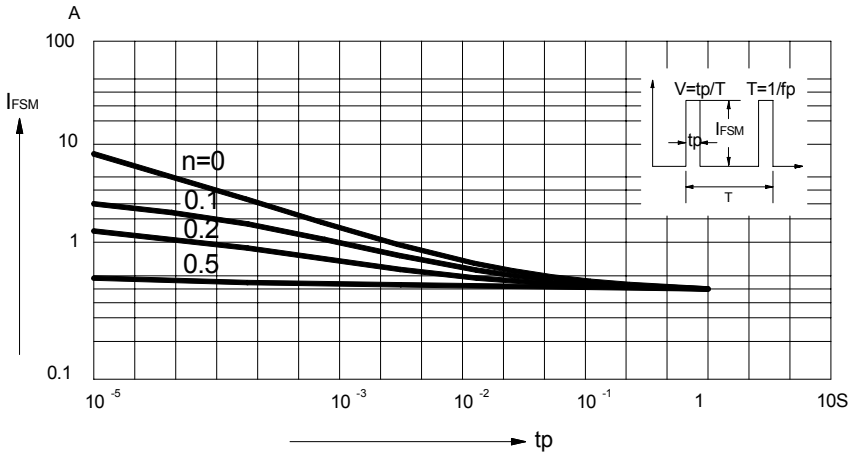


FIG.3 -- ADMISSIBLE REPETITIVE PEAK FORWARD CURRENT VERSUS PULSE DURATION



Ratings AND Charactieristic Curves

FIG.4 – RECTIFICATION EFFICIENCY MEASUREMENT CIRCUIT

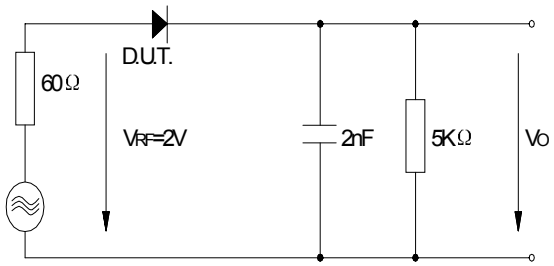


FIG.5 – RELATIVE CAPACITANCE VERSUS VOLTAGE

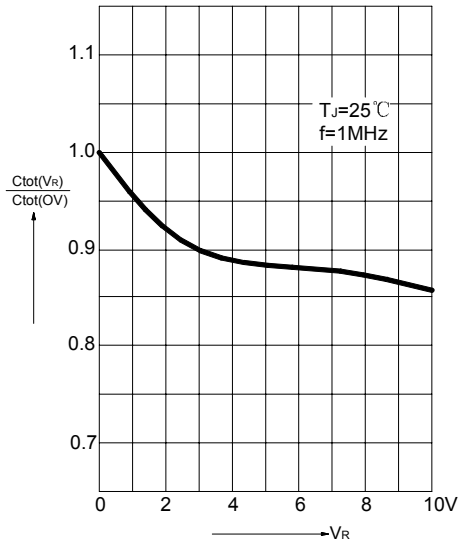


FIG.6 – LEAKAGE CURRENT VERSUS JUNCTION TEMPERATURE

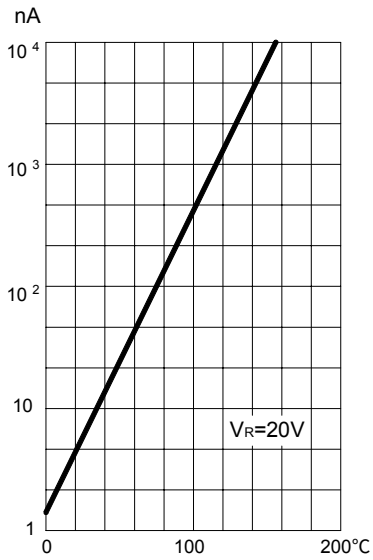


FIG.7 – DYNAMIC FORWARD RESISTANCE VERSUS FORWARD CURRENT