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SILICON EPITAXIAL PLANAR DIODE

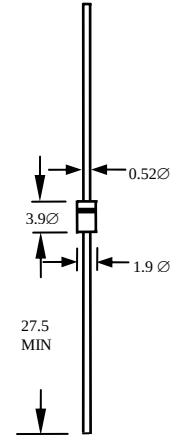
1N914 1N914A 1N914B

FEATURES

- FAST SWITCHING
- SMALL BODY

MECHANICAL DATA

- CASE GLASS, DO35, DIMENSIONS IN INCHES AND (MILLIMETERS)
- LEADS SOLDERABLE PER MIL-STD-202, METHOD 208
- POLARITY CATHODE INDICATED BY COLOR BAND
- WEIGHT 0.13 GRAMS



RATINGS	SYMBOL	1N914	1N914A	1N914B	UNITS
REVERSE VOLTAGE	V_R	75			V
PEAK REVERSE VOLTAGE	V_{RM}	100			V
RECTIFIED CURRENT (AVERAGE) HALF WAVE RECTIFICATION WITH RESIST LOAD AT $T_{amb}=25^{\circ}\text{C}$ AND $\geq 50\text{Hz}$.	I_O	75			mA
SURGE FORWARD CURRENT AT $T < 1\text{ s}$ AND $T_J=25^{\circ}\text{C}$	I_{FSM}	500			mA
POWER DISSIPATION AT $T_{amb}=25^{\circ}\text{C}$	P_{TOT}	500			mW
JUNCTION TEMPERATURE	T_J	200			$^{\circ}\text{C}$
STORAGE TEMPERATURE RANGE	T_S	- 55 TO + 200			$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS ($A_T T_A = 25^{\circ}\text{C}$ UNLESS OTHERWISE NOTED)

CHARACTERISTICS	SYMBOL	MIN	TYP	MAX	UNITS
FORWARD VOLTAGE AT $I_F=10\text{mA}$ (1N914)	V_F	-	-	1	V
FORWARD VOLTAGE AT $I_F=20\text{mA}$ (1N914A)					
FORWARD VOLTAGE AT $I_F=100\text{mA}$ (1N914B)					
LEAKAGE CURRENT	I_R	-	-	25	nA
AT $V_R=20\text{V}$					
AT $V_R=75\text{V}$					
AT $V_R=20\text{V}$ $T_J=150^{\circ}\text{C}$	I_R	-	-	50	μA
REVERSE BREAKDOWN VOLTAGE TESTED WITH 100 μA PULSES	V_R	100	-	-	V
CAPACITANCE AT $V_F=V_R=0$	C_{TOT}	-	-	4	PF
VOLTAGE RISE WHEN SWITCHING ON TESTED WITH 50mA FORWARD PULSES TP=0.1 μs RISE TIME < 30ns $F_p=50$ TO 100 KHZ	V_{FR}	-	-	2.5	V
REVERSE RECOVERY TIME FROM $I_F=10\text{mA}$ TO $I_R=1\text{mA}$ $V_R=6\text{V}$ $R_L=100\Omega$	T_{RR}	-	-	4	nS
THERMAL RESISTANCE FUNCTION TO AMBIENT AIR	R_{THA}	-	-	0.35	K / mW
RECTIFICATION EFFICIENCY AT $F=100\text{ MHz}$ $V_{RF}=2\text{V}$	N_V	0.45	-	-	-

Fig. 1-Admissible repetitive peak forward current versus pulse duration

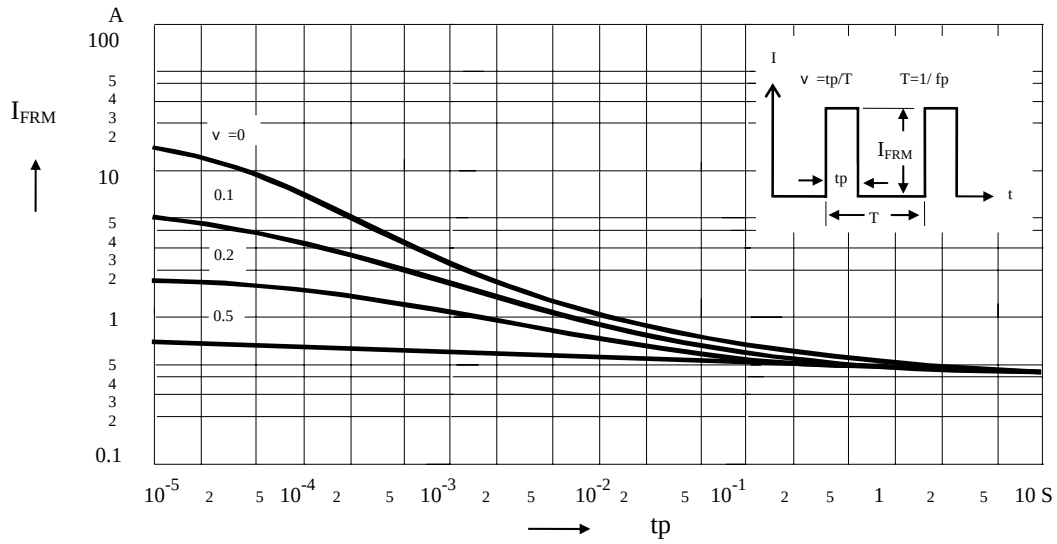


Fig. 2-Forward characteristics

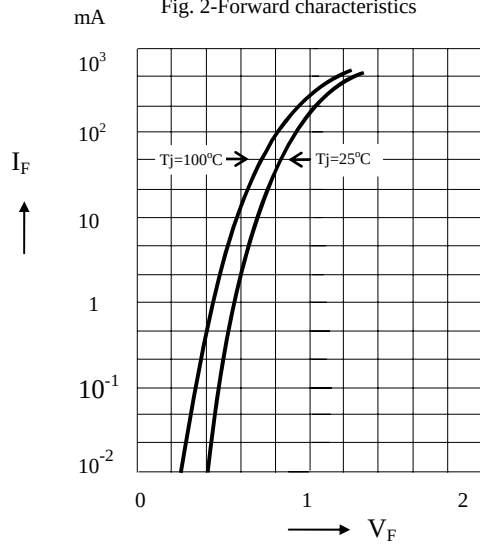


Fig. 3-Dynamic forward resistance versus forward current

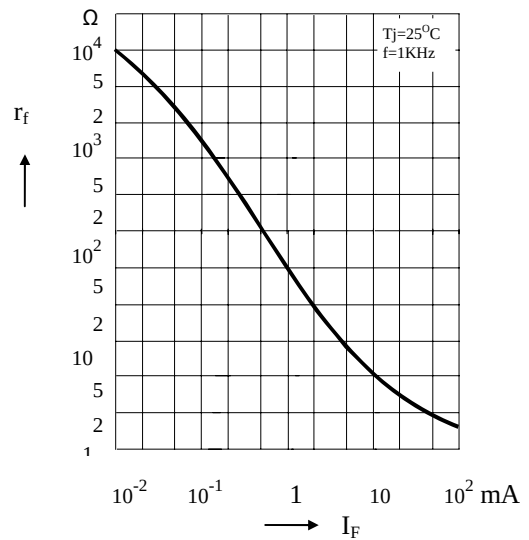


Fig. 4-Admissible power dissipation versus ambient temperature

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

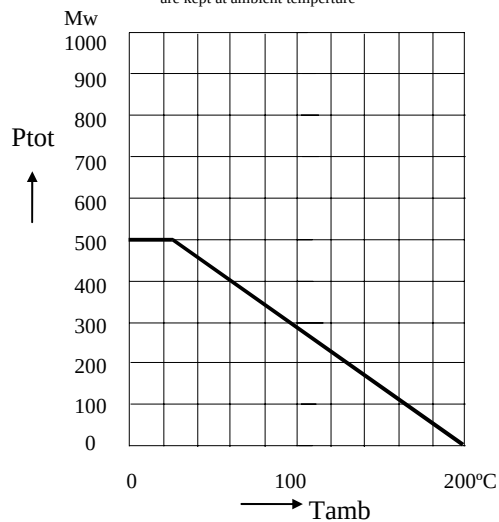


Fig. 5-Relative capacitance versus reverse voltage

