

<p><b>SMALL SIGNAL SWITCHING DIODE</b></p> <p><b>FEATURES</b></p> <ul style="list-style-type: none"> <li>● Silicon epitaxial planar diode</li> <li>● High speed switching diode</li> <li>● 500mW power dissipation</li> <li>● These diodes are also available in glass case DO-34, Mini-MELF</li> </ul> <p><b>MECHANICAL DATA</b></p> <ul style="list-style-type: none"> <li>● Case: DO-35 glass case</li> <li>● Polarity: Color band denotes cathode</li> <li>● Weight: 0.004 ounces , 0.13 grams</li> </ul>	<p><b>REVERSE VOLTAGE - 75 Volts</b> <b>FORWARD CURRENT - 0.15Amperes</b></p> <p><b>D0 - 35</b></p> <p style="text-align: center;">Dimensions in inches and (millimeters)</p>
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**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Rating at 25°C ambient temperature unless otherwise specified.

**MAXIMUM RATINGS**

		1N4148	UNIT
Reverse Voltage	V <sub>R</sub>	75	V
Peak Reverse Voltage	V <sub>RM</sub>	100	V
Average Forward Rectified Current Half Wave Rectification with Resist .load at T <sub>amb</sub> =25°C and f≧50HZ	I <sub>o</sub>	150	mA
Forward Surge Current at t<1s and T <sub>J</sub> =25°C	I <sub>FSM</sub>	500	mA
Power Dissipation at Tamb=25°C	P <sub>TOT</sub>	500 <sup>(1)</sup>	mW
Junction Temperature	T <sub>J</sub>	175	°C
Storage Temperature Range	T <sub>STG</sub>	- 65 to + 175	°C

NOTE:(1) Valid provided that leads at a distance of 8mm from case are kept at ambient temperature .

**ELECTRICAL CHARACTERISTICS**

		MIN	TYP	MAX	UNIT
Forward Voltage at I <sub>F</sub> =10mA	V <sub>F</sub>	-	-	1	V
Leakage Current at V <sub>R</sub> =20V at V <sub>R</sub> =75V at V <sub>R</sub> =20V T <sub>J</sub> =150°C	I <sub>R</sub>	-	-	25	uA
	I <sub>R</sub>	-	-	5	uA
	I <sub>R</sub>	-	-	50	uA
Capacitance at V <sub>F</sub> =V <sub>R</sub> =0V	C <sub>tot</sub>	-	-	4	pF
Voltage Rise when Switching ON tested with 50mA pulses tp=0.1us.Rise Time<30ns.fp=5to 100Hz	V <sub>fr</sub>	-	-	2.5	v
Reverse Recovery Time From IF=10mA V <sub>R</sub> =6V. RL=100Ω at IR=1mA	t <sub>rr</sub>	-	-	4	ns
Thermal Resistance Junction to Ambient	R <sub>θJA</sub>	-	-	350 <sup>(1)</sup>	K/W
Rectification Efficiency at 100MHZ V <sub>RF</sub> =2V	η <sub>V</sub>	0.45	-	-	-

NOTE:(1)Valid provided that leads at a distance of 8mm from case are kept at ambient temperature.

FIG.1-ADMISSIBLE POWER DISSIPATION  
VERSUS AMBIENT TEMPERATURE

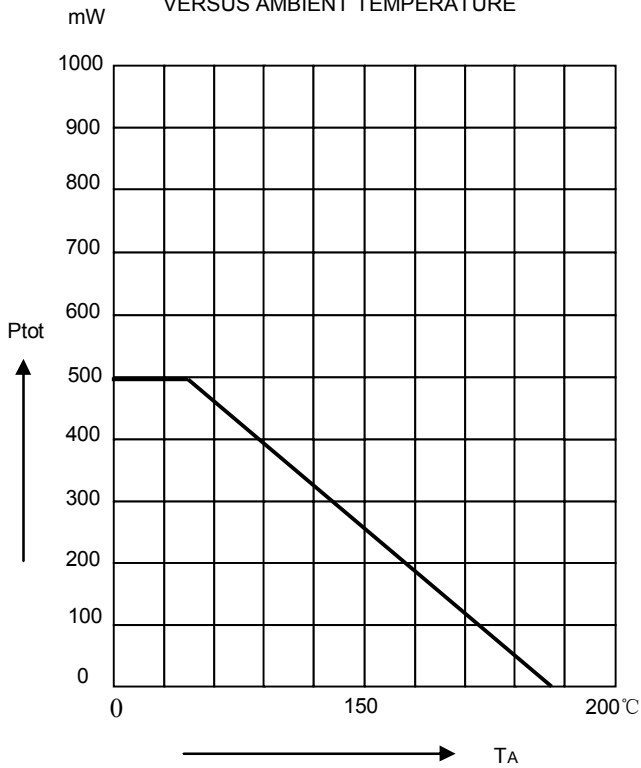


FIG.2-FORWARD CHARACTERISTICS

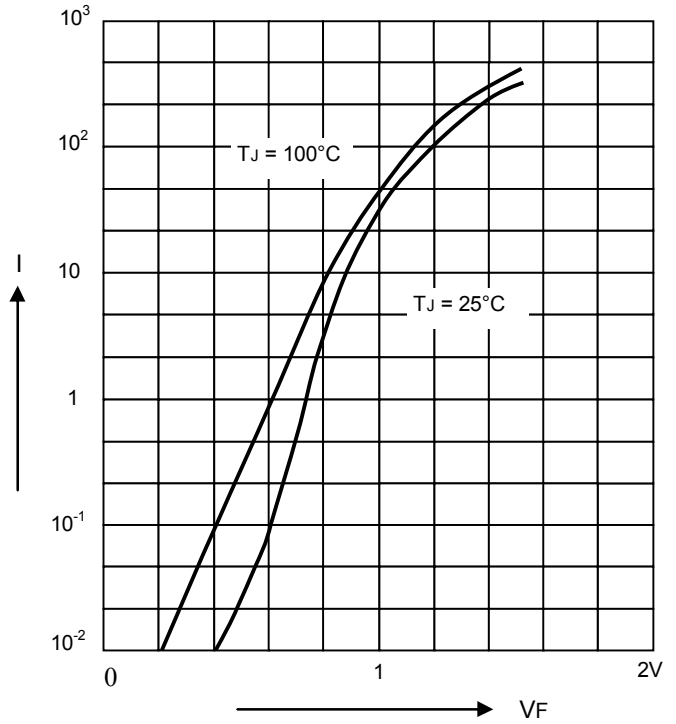


FIG.3-ADMISSIBLE REPETITIVE PEAK FORWARD CURRENT VERSUS PULSE DURATION

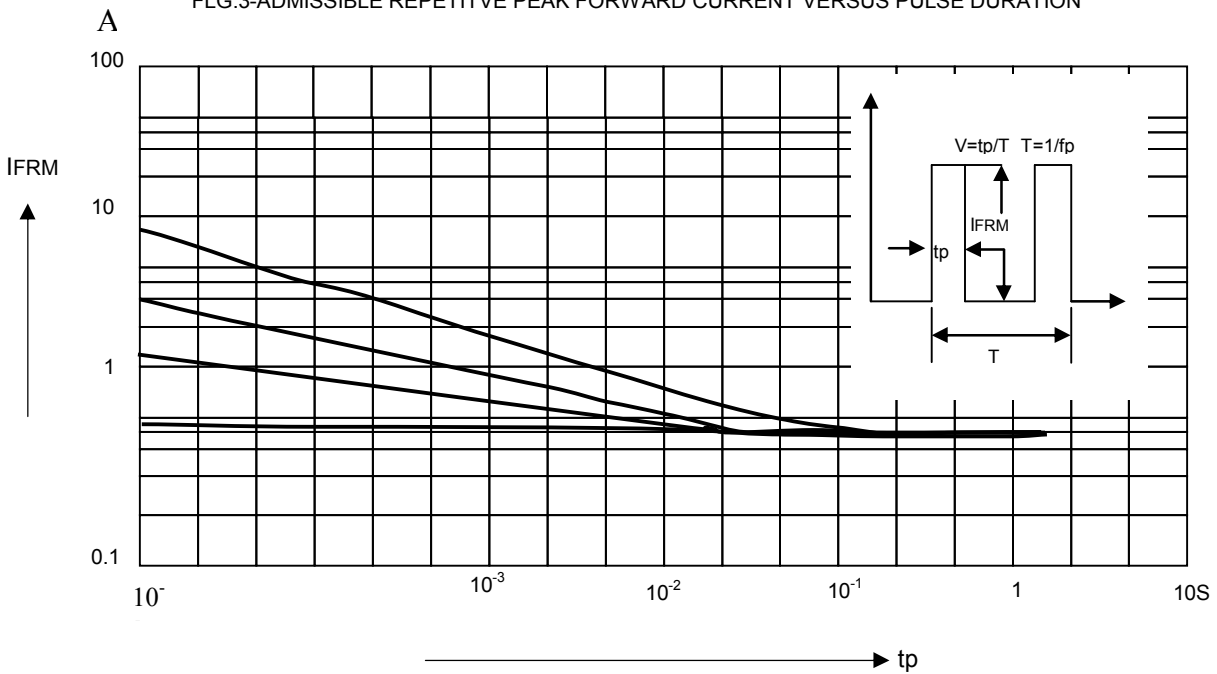


FIG.4-RECTIFICATION EFFICIENCY MEASUREMENT CIRCUIT

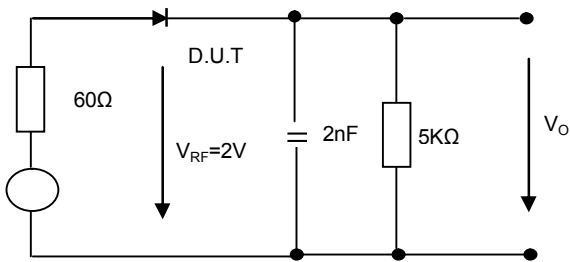


FIG.5-RELATIVE CAPACITANCE VERSUS VOLTAGE

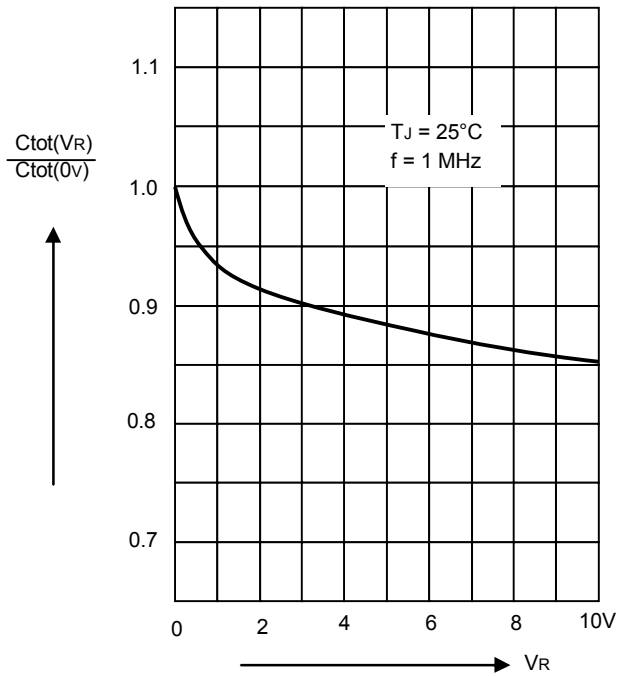


FIG.6-LEAKAGE CURRENT VERSUS JUNCTION TEMPERATURE

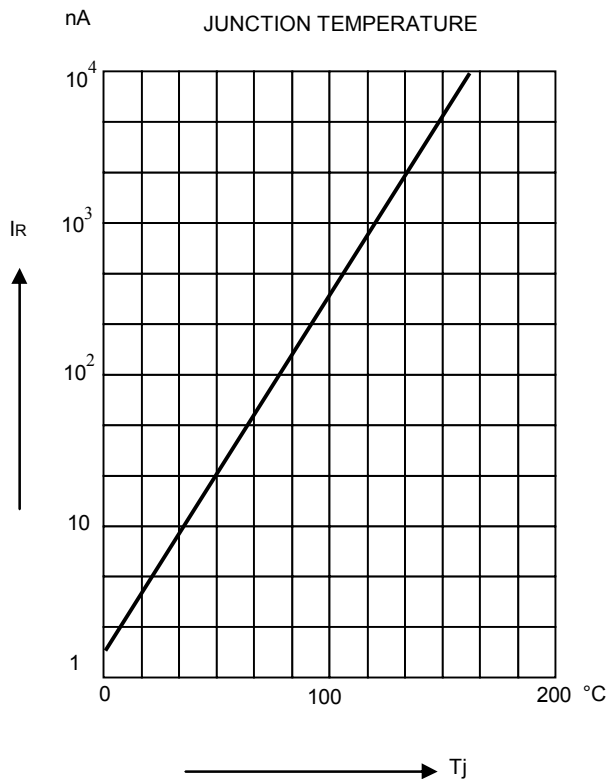


FIG.7-DYNAMIC FORWARD RESISTANCE VERSUS FORWARD CURRENT

