

<p>SMALL SIGNAL SWITCHING DIODE</p> <p>FEATURES</p> <ul style="list-style-type: none"> ● Silicon epitaxial planar diode ● High speed switching diode ● 500mW power dissipation ● These diodes are also available in glass case DO-34, Mini-MELF <p>MECHANICAL DATA</p> <ul style="list-style-type: none"> ● Case: DO-35 glass case ● Polarity: Color band denotes cathode ● Weight: 0.004 ounces , 0.13 grams 	<p>REVERSE VOLTAGE - 75 Volts FORWARD CURRENT - 0.15Amperes</p> <p>DO - 35</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 _R	75	V
Peak Reverse Voltage	V _{RM}	100	V
Average Forward Rectified Current Half Wave Rectification with Resist .load at T _{amb} =25°C and f≧50HZ	I _o	150	mA
Forward Surge Current at t<1s and T _J =25°C	I _{FSM}	500	mA
Power Dissipation at Tamb=25°C	P _{TOT}	500 ⁽¹⁾	mW
Junction Temperature	T _J	175	°C
Storage Temperature Range	T _{STG}	- 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 _F =10mA	V _F	-	-	1	V
Leakage Current at V _R =20V at V _R =75V at V _R =20V T _J =150°C	I _R	-	-	25	uA
	I _R	-	-	5	uA
	I _R	-	-	50	uA
Capacitance at V _F =V _R =0V	C _{tot}	-	-	4	pF
Voltage Rise when Switching ON tested with 50mA pulses tp=0.1us.Rise Time<30ns.fp=5to 100Hz	V _{fr}	-	-	2.5	v
Reverse Recovery Time From I _F =10mA V _R =6V. RL=100Ω at I _R =1mA	t _{rr}	-	-	4	ns
Thermal Resistance Junction to Ambient	R _{θJA}	-	-	350 ⁽¹⁾	K/W
Rectification Efficiency at 100MHZ V _{RF} =2V	η _V	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

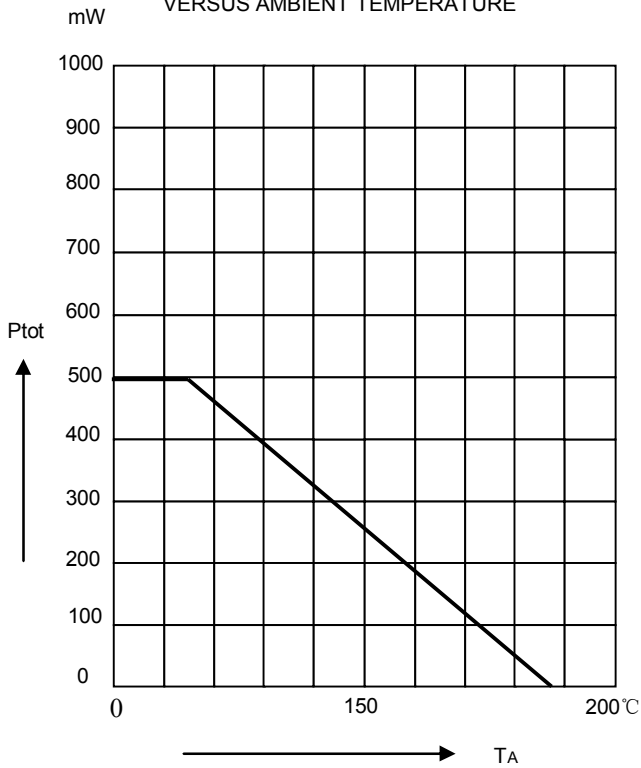


FIG.2-FORWARD CHARACTERISTICS

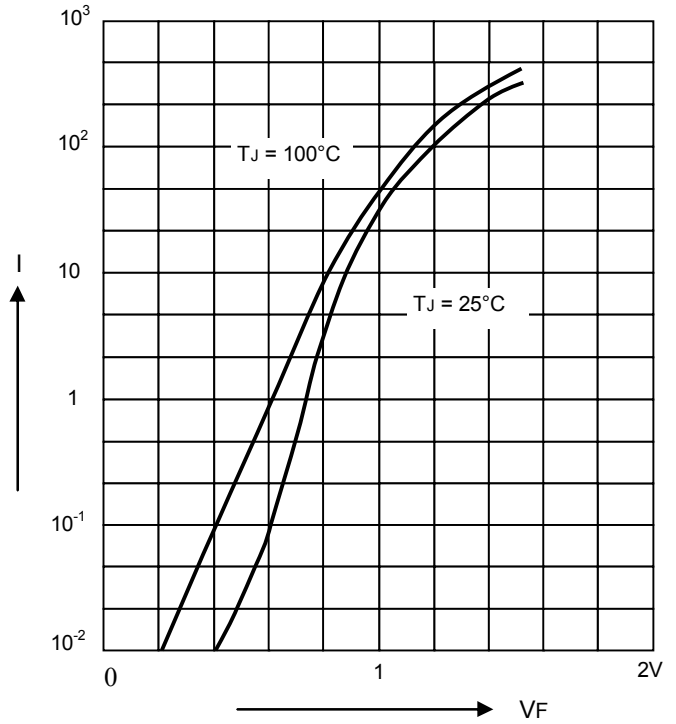


FIG.3-ADMISSIBLE REPETITIVE PEAK FORWARD CURRENT VERSUS PULSE DURATION

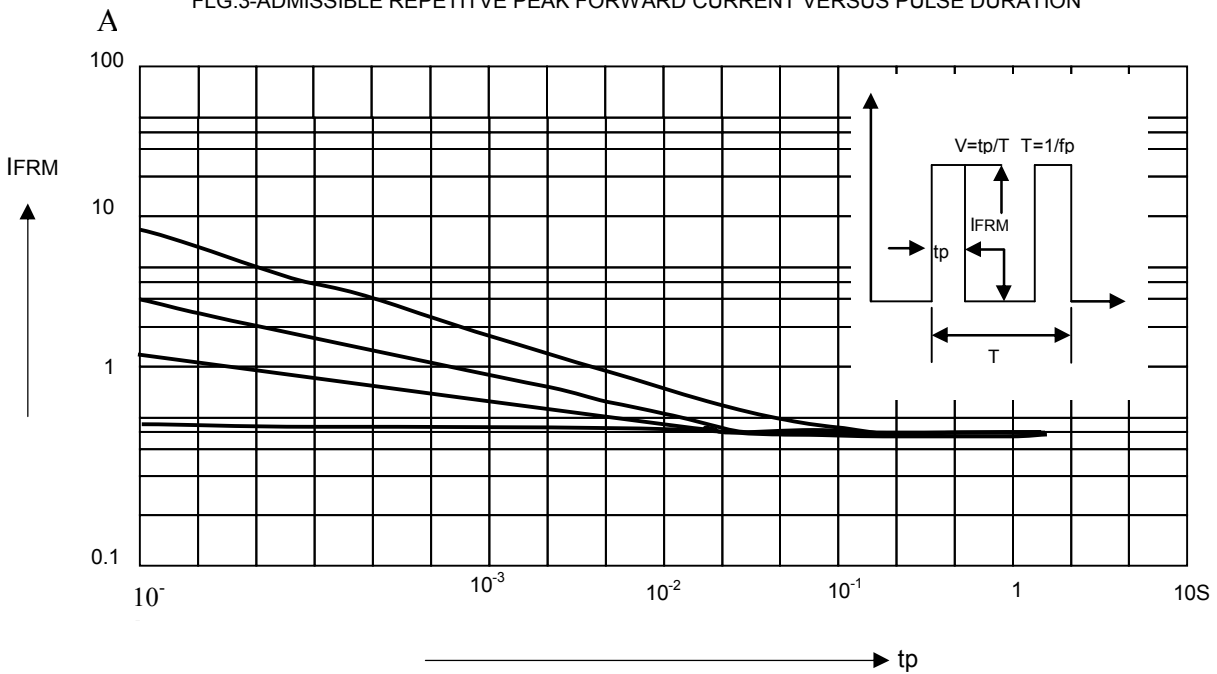


FIG.4-RECTIFICATION EFFICIENCY MEASUREMENT CIRCUIT

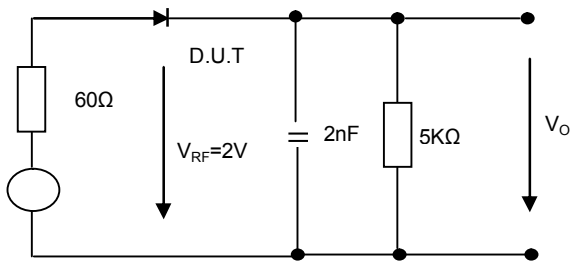


FIG.5-RELATIVE CAPACITANCE VERSUS VOLTAGE

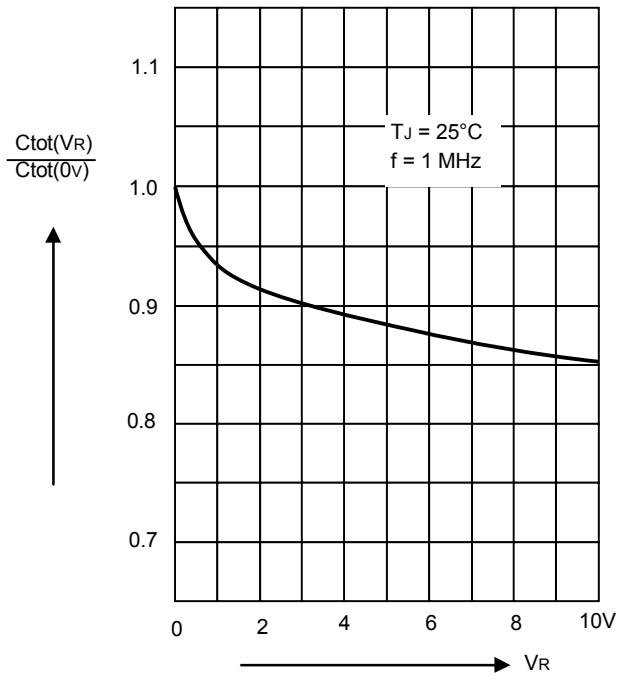


FIG.6-LEAKAGE CURRENT VERSUS JUNCTION TEMPERATURE

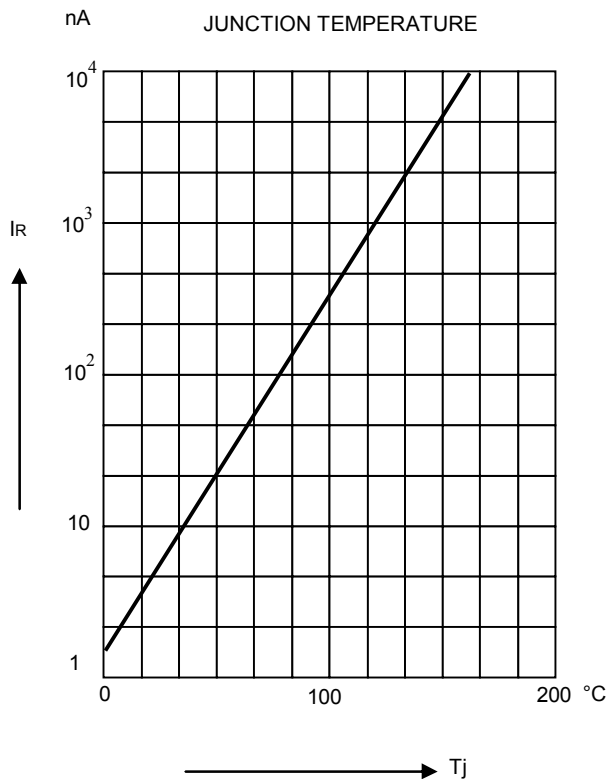


FIG.7-DYNAMIC FORWARD RESISTANCE VERSUS FORWARD CURRENT

