

SMALL SIGNAL SWITCHING DIODE	REVERSE VOLTAGE - 75 Volts FORWARD CURRENT - 0.15Amperes
FEATURES <ul style="list-style-type: none"> ● Silicon epitaxial planar diode ● High speed switching diode ● 500mW power dissipation 	<div style="border: 1px solid black; padding: 2px; width: fit-content; margin: 0 auto;"> DL - 35 </div>
MECHANICAL DATA <ul style="list-style-type: none"> ● Case: Mini-MELF glass case ● Polarity: Color band denotes cathode ● Weight : Approx.0.05 grams 	Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

MAXIMUM RATINGS

		LL4148	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 $T_{amb}=25^{\circ}C$ and $f \cong 50Hz$	I_o	150	mA
Forward Surge Current at $t < 1s$ and $T_J=25^{\circ}C$	I_{FSM}	500	mA
Power Dissipation at $T_{amb}=25^{\circ}C$	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 electrodes 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 $V_R=20V$ $T_J=150^{\circ}C$	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 $t_p=0.1\mu s$. Rise Time < 30ns. $f_p=5$ to 100Hz	V_{fr}	-	-	2.5	v
Reverse Recovery Time From $I_F=10mA$ $V_R=6V$. $R_L=100\Omega$ at $I_R=1mA$	t_{rr}	-	-	4	ns
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	-	-	350 ⁽¹⁾	K/W
Rectification Efficiency at 100MHZ $V_{RF}=2V$	η_V	0.45	-	-	-

NOTE:(1)Valid provided that electrodes are kept at ambient temperature.

FIG.1-ADMISSIBLE POWER DISSIPATION
VERSUS AMBIENT TEMPERATURE

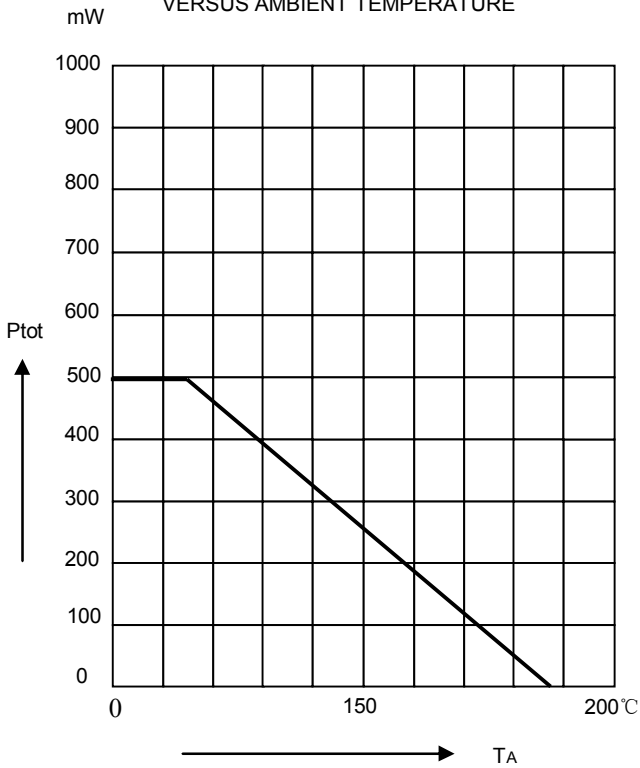


FIG.2-FORWARD CHARACTERISTICS

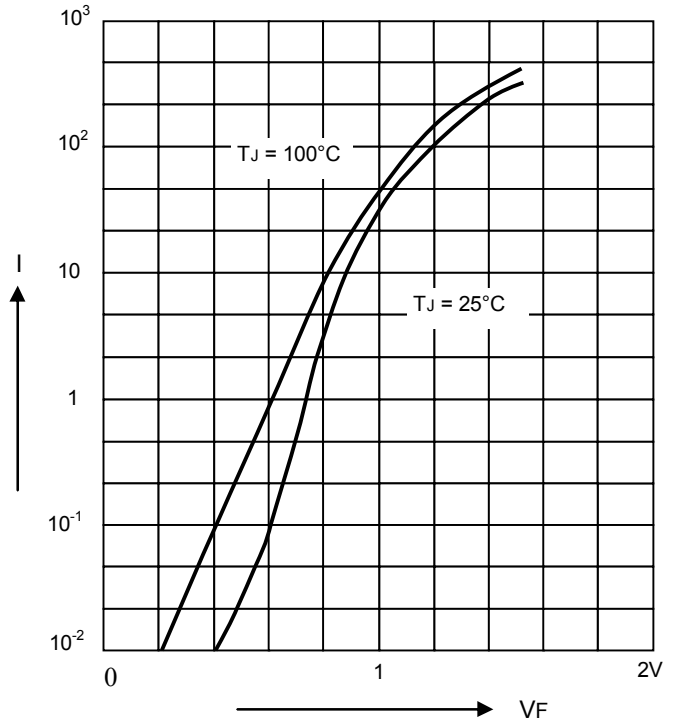


FIG.3-ADMISSIBLE REPETITIVE PEAK FORWARD CURRENT VERSUS PULSE DURATION

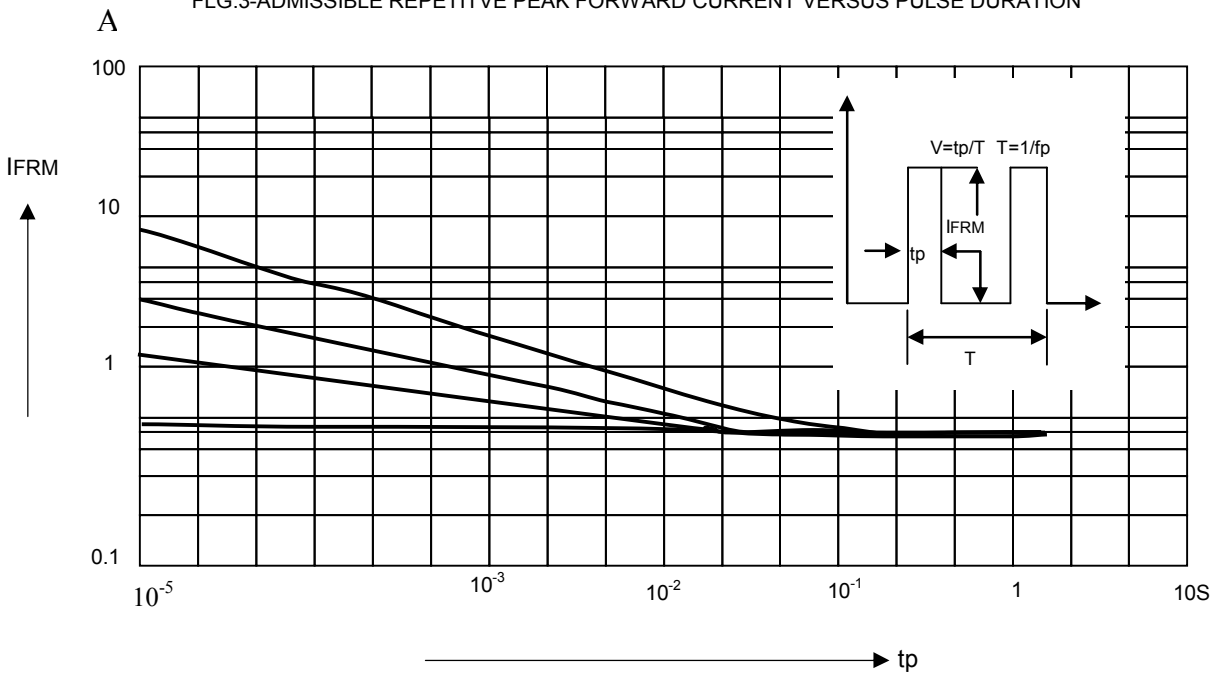


FIG.4-RECTIFICATION EFFICIENCY MEASUREMENT CIRCUIT

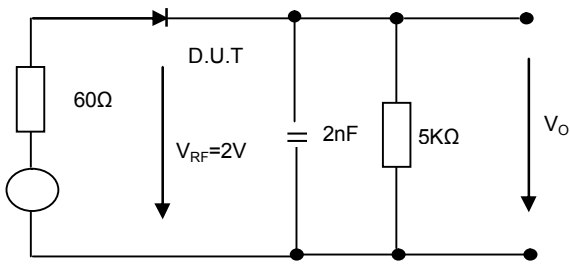


FIG.5-RELATIVE CAPACITANCE VERSUS VOLTAGE

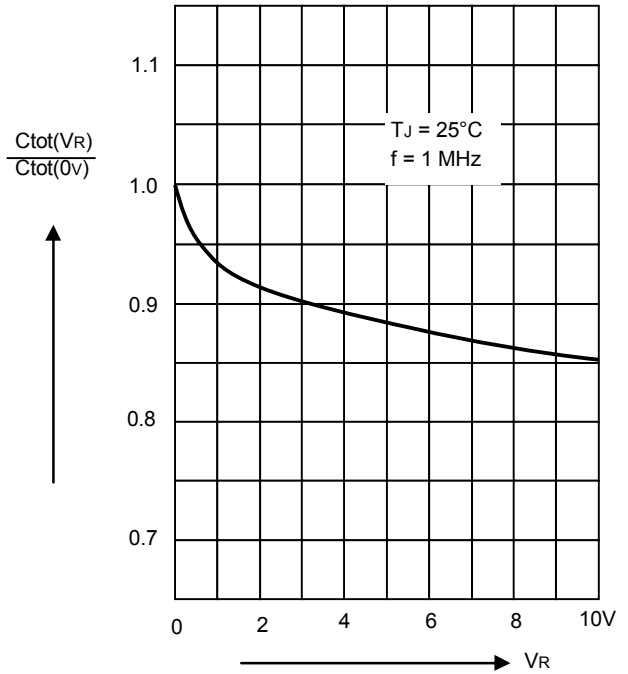


FIG.6-LEAKAGE CURRENT VERSUS JUNCTION TEMPERATURE

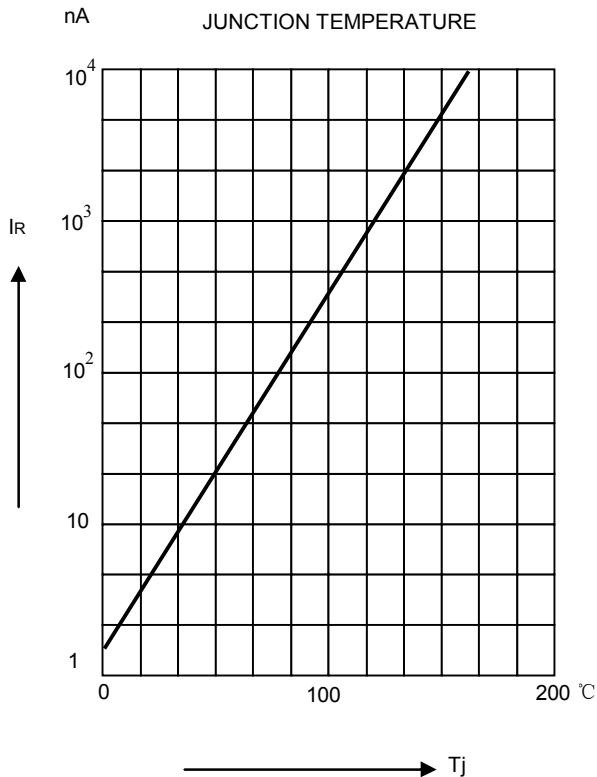


FIG.7-DYNAMIC FORWARD RESISTANCE VERSUS FORWARD CURRENT

