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MINI MELF SILICON EPITAXIAL PLANAR DIODE

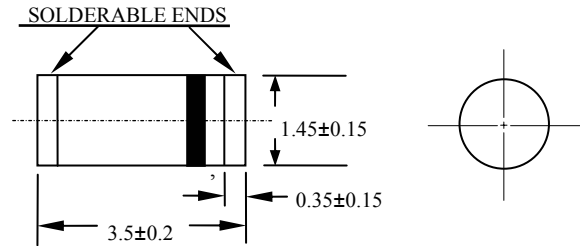
MM4148-LFR

FEATURES

- FAST SWITCHING
- MINI MELF SIZE
- ROHS

MECHANICAL DATA

- CASE: GLASS, DO-213AA (GL34), DIMENSIONS IN MILLIMETERS
- LEADS: SOLDERABLE PER MIL-STD-202, METHOD 208
- POLARITY: CATHODE INDICATED BY COLOR BAND
- WEIGHT: 0.036 GRAMS



RATINGS	SYMBOL	MM4148-LFR	UNITS
REVERSE VOLTAGE	V_R	75	V
PEAK REVERSE VOLTAGE	V_{RM}	100	V
RECTIFIED CURRENT (AVERAGE) HALF WAVE RECTIFICATION WITH RESIST LOAD AT $T_{amb} = 25^{\circ}C$ AND $f \geq 50HZ$ (NOTE 1)	I_O	150	mA
SURGE FORWARD CURRENT AT $T < 1 s$ AND $T_J = 25^{\circ}C$	I_{FSM}	500	mA
POWER DISSIPATION AT $T_{amb}=25^{\circ}C$	P_{TOT}	500	mW
JUNCTION TEMPERATURE	T_J	200	$^{\circ}C$
STORAGE TEMPERATURE RANGE	T_S	- 55 TO + 200	$^{\circ}C$

CHARACTERISTICS $T_J=25^{\circ}C$	SYMBOL	MIN	TYP	MAX	UNITS
FORWARD VOLTAGE AT $I_F=10mA$	V_F	-	-	1	V
LEAKAGE CURRENT AT $V_R=20V$	I_R	-	-	25	nA
AT $V_R=75V$	I_R	-	-	5	μA
AT $V_R=20V T_J=150^{\circ}C$	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 $F_p=5$ TO 100 KHZ	V_{FR}	-	-	2.5	V
REVERSE RECOVERY TIME FROM $I_F=10mA$ TO $I_R=1mA V_R=6V R_L=100\Omega$	T_{RR}	-	-	4	nS
THERMAL RESISTANCE JUNCTION TO AMBIENT AIR (NOTE 1)	R_{THA}	-	-	0.35	K / mW
RECTIFICATION EFFICIENCY AT $f=100$ MHZ $V_{RF}=2V$	η_V	0.45	-	-	-

NOTE: 1. LEADS KEPT AT AMBIENT TEMP.

RATINGS AND CHARACTERISTIC CURVE MM4148-LFR

FIG. 1-FORWARD CHARACTERISTIC

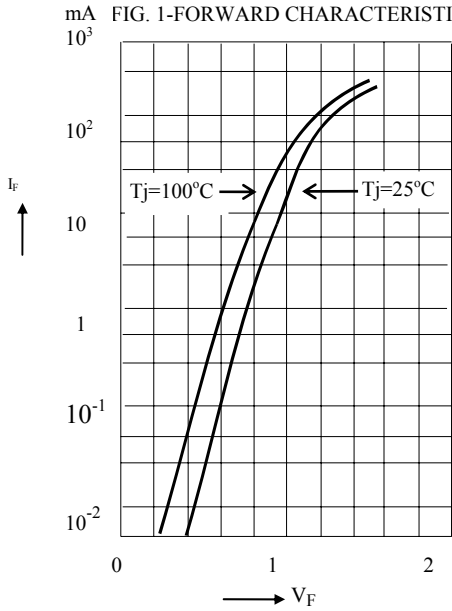


FIG. 2-DYNAMIC FORWARD RESISTANCE VERSUS FORWARD CURRENT

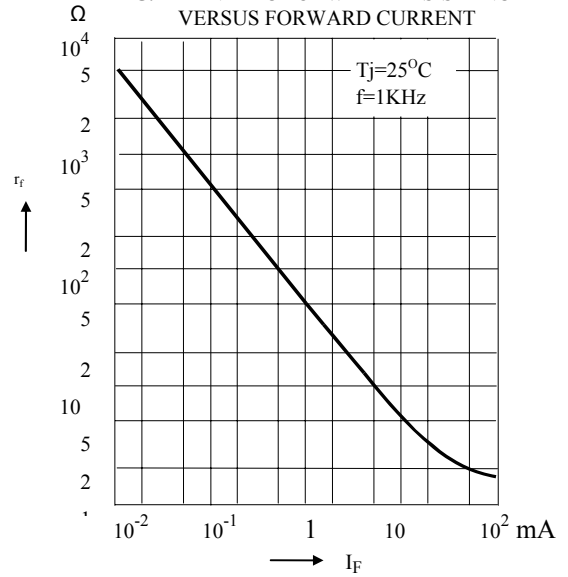


FIG. 3-ADMISSIBLE POWER DISSIPATION VERSUS AMBIENT TEMPERATURE
Valid provided that leads at a distance of 8mm from case are kept at ambient temperature

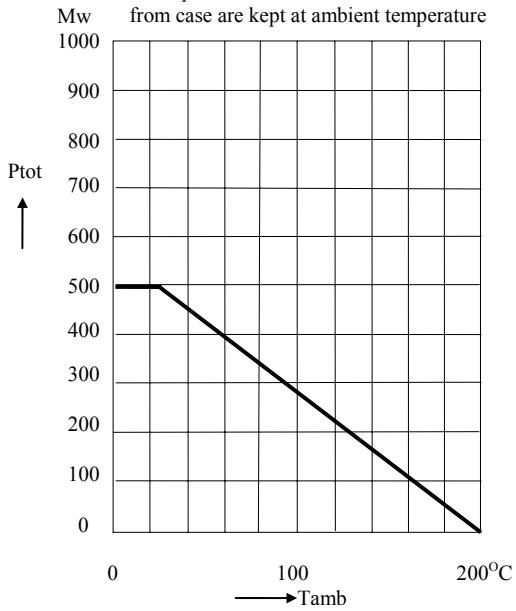
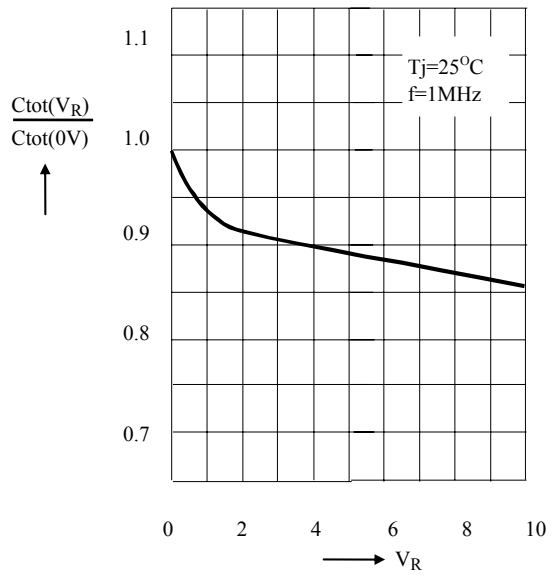


FIG. 4-RELATIVE CAPACITANCE VERSUS REVERSE VOLTAGE



RATINGS AND CHARACTERISTIC CURVE MM4148-LF

FIG. 5-LEAKAGE CURRENT VERSUS JUNCTION TEMPERATURE

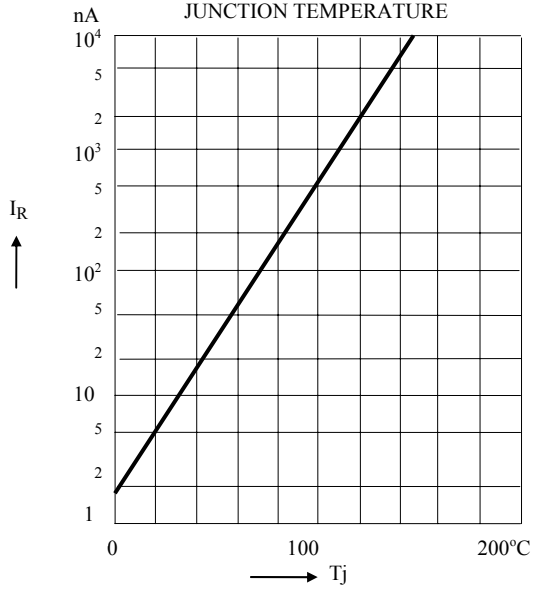


FIG. 6-ADMISSIBLE REPETITIVE PEAK FORWARD CURRENT VERSUS PULSE DURATION

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

