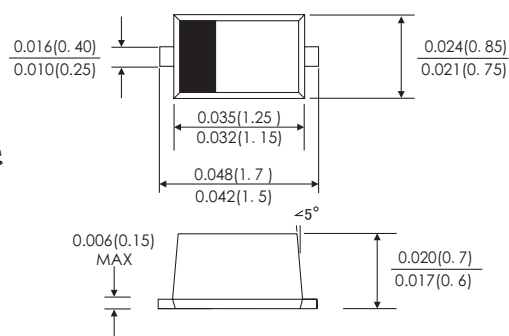


FEATURES

- Silicon epitaxial planar diode
- Fast switching diode
- This diode is also available in other case styles including: the DO-35 case with the type designation 1N4148, the MiniMelf case with the type designation LL4148, the MicroMelf case with the type designation MCL4148, the SOD-123 case with the type designation 1N4148W, the SOD-523FL case with the type designation 1N4148WT.



SOD-523FL



MECHANICAL DATA

- Case: SOD-523FL plastic case

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified)

	Symbols	Value	Units
Reverse Voltage	V_R	75	Volts
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	Volts
Average rectified forward current	I_{AV}	125	mA
Non-Repetitive Peak Forward Surge Current @ $t=100ms$	I_{FSM}	1	A
Power dissipation at $T_A=25^\circ C$	P_{tot}	150	mW
Junction temperature	T_J	150	$^\circ C$
Storage temperature range	T_{STG}	-65 to +150	$^\circ C$

ELECTRICAL CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified)

	Symbol	Min.	Typ.	Max.	Units
Forward voltage at $I_F=1mA$ at $I_F=10mA$ at $I_F=50mA$ at $I_F=150mA$	V_F			0.715 0.855 1 1.25	Volts
Leakage current at $V_R=20V$ at $V_R=75V$ at $V_R=25V, T_J=150^\circ C$	I_R			25 1 30	nA μA μA
Junction capacitance at $V_R=0V, f=1MHZ$	C_J			2	pF
Reverse recovery time at $I_{rr}=0.1 \times I_R, I_F=I_R=10mA, R_L=100\Omega$	t_{rr}			4	ns

RATINGS AND CHARACTERISTIC CURVES 1N4148WT

FIG 1-FORWARD CHARACTERISTICS

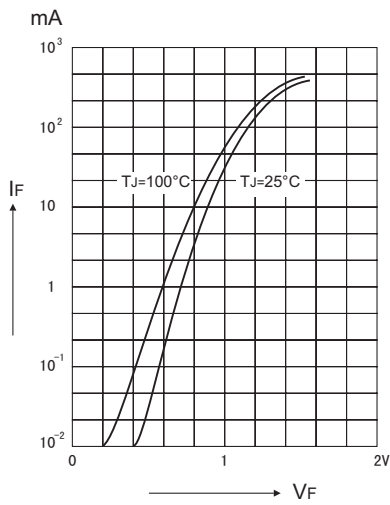


FIG 2: DYNAMIC FORWARD RESISTANCE VERSUS FORWARD CURRENT

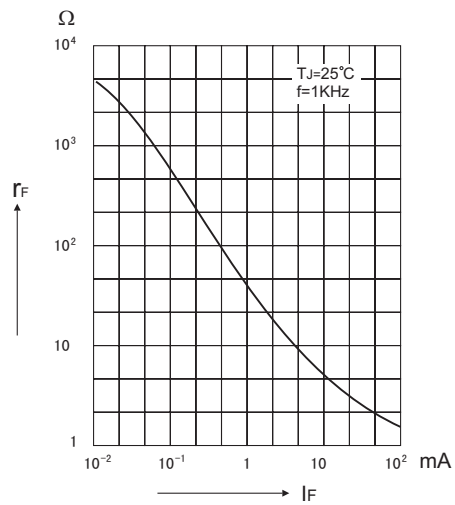


FIG 3-ADMISSIBLE POWER DISSIPATION VERSUS AMBIENT TEMPERATURE

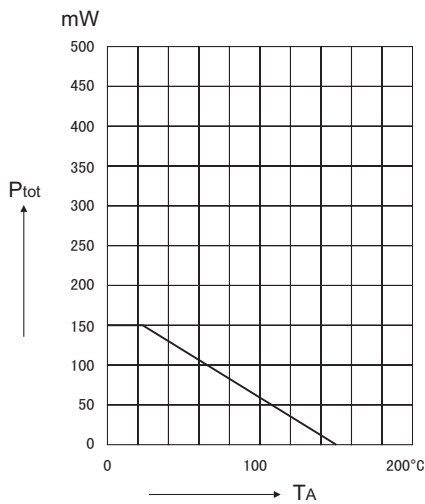
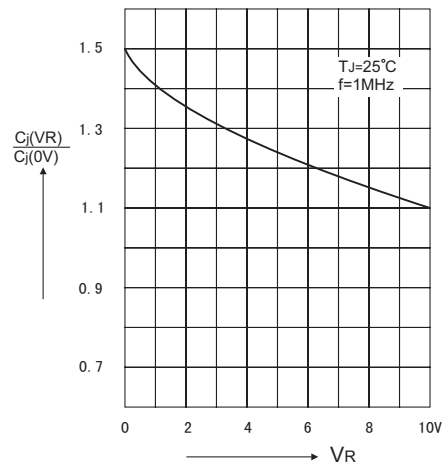


FIG. 4-RELATIVE CAPACITANCE VERSUS VOLTAGE



RATINGS AND CHARACTERISTIC CURVES 1N4148WT

FIG.5 RECTIFICATION EFFICIENCY MEASUREMENT CIRCUIT

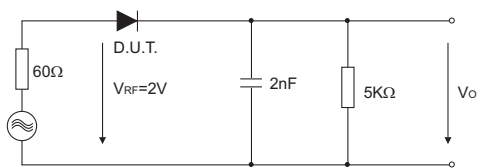


FIG 6: LEAKAGE CURRENT VERSUS JUNCTION TEMPERATURE

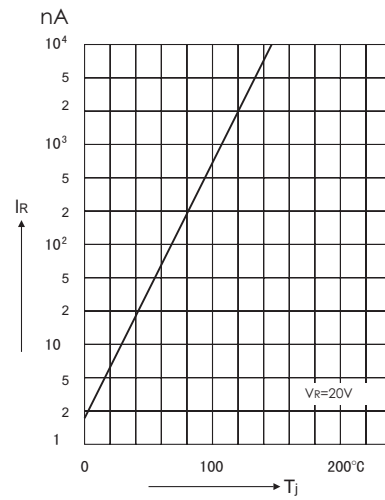


FIG 7: ADMISSIBLE REPETITIVE PEAK FORWARD CURRENT VERSUS PULSE DURATION

