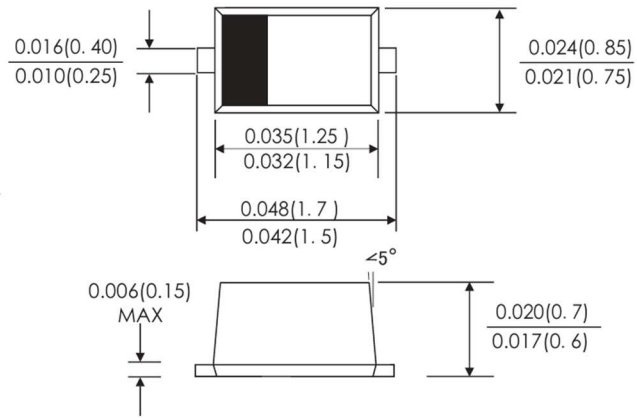
SWITCHING DIODE

Features

- For surface mounted applications
- Silicon epitaxial planar diode
- Glass Passivated Chip Junction
- Fast switching diode
- Ideal for automated placement

SOD-523FL



Dimensions in inches and (millimeters)

Order Information

Part Number	Package	Marking	Quantity
1N4148WT	SOD-523FL	T4	3000

Absolute Maximum Ratings (T=25ºC, unless otherwise specified)

Parameter	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Reverse Voltage	V_R	75	V
Average Rectified Forward Current	$I_{O(AV)}$	125	mA
Non-Repetitive Peak Forward Surge Current (@t =100ms)	I_{FSM}	1	A
Power Dissipation	P_D	150	mW
Operating Junction Temperature	T_J	150	℃
Storage Temperature	T_{STG}	-65 ~ +150	℃

Electrical Characteristics (T=25ºC, unless otherwise specified)

Parameter	Symbol	Test Condition	Min	Max	Unit
Reverse Leakage Current	I_R	V_R = 20V, T_J =25ºC		0.025	μA
		V_R = 75V, T_J =25ºC		1	
		V_R = 25V, T_J =150ºC		30	
Forward Voltage	V_F	I_F = 1mA		0.715	V
		I_F = 10mA		0.855	
		I_F = 50mA		1	
		I_F = 150mA		1.25	
Junction Capacitance	C_J	V_R=0, f=1MHZ		2	pF
Reverse Recovery Time	T_{rr}	I_F=10mA, I_R=10mA Irr=0.1x I_R, R_L=100Ω		4	ns

RATINGS AND CHARACTERISTIC CURVES

FIG 1-FORWARD CHARACTERISTICS

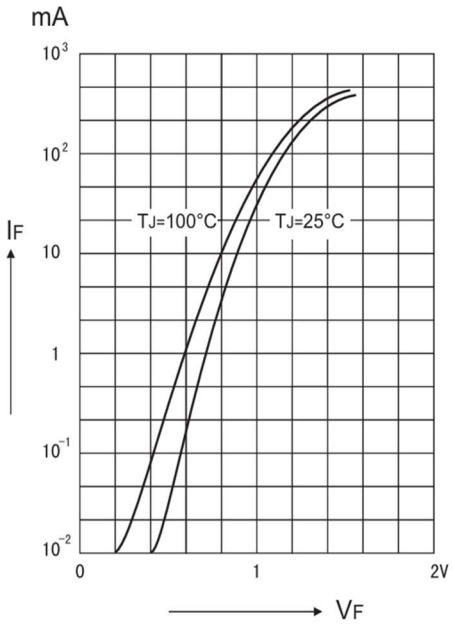


FIG 2: DYNAMIC FORWARD RESISTANCE VERSUS FORWARD CURRENT

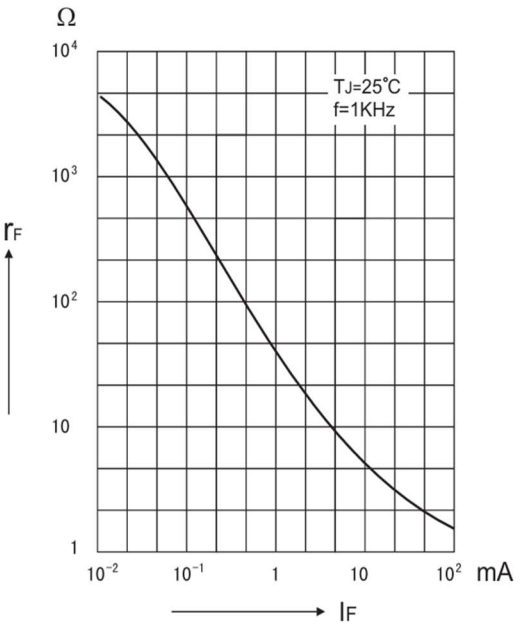


FIG 3-ADMISSIBLE POWER DISSIPATION VERSUS AMBIENT TEMPERATURE

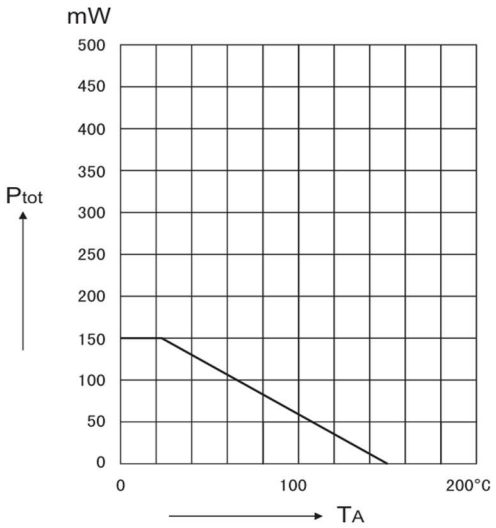


FIG. 4-RELATIVE CAPACITANCE VERSUS VOLTAGE

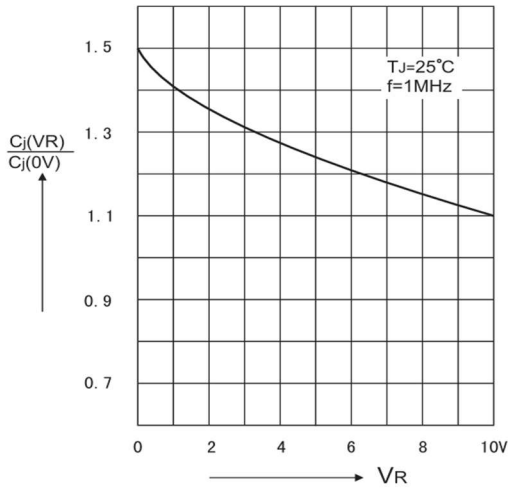


FIG.5 RECTIFICATION EFFICIENCY MEASUREMENT CIRCUIT

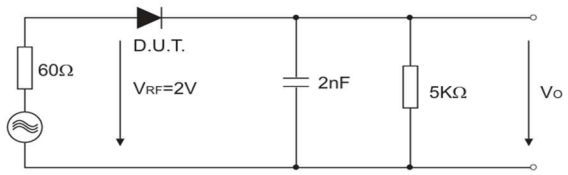


FIG 6: LEAKAGE CURRENT VERSUS JUNCTION TEMPERATURE

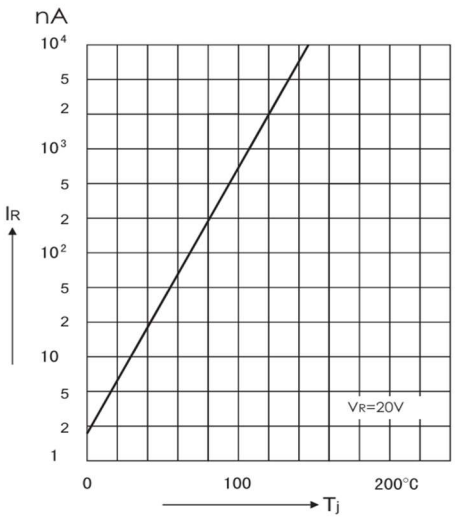


FIG 7: ADMISSIBLE REPETITIVE PEAK FORWARD CURRENT VERSUS PULSE DURATION