WEITRON

1N4148/1N4448

Surface Mount Switching Diodes

Lead(Pb)-Free

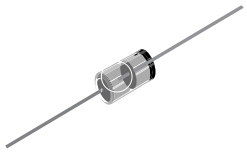
SMALL SIGNAL
SWITCHING DIODES
150 m AMPERES
100 VOLTS

Features:

*Silicon Epitaxial Planner Diode
*Fast Switching Diodes
*500 mW Power Dissipation

Mechanical Data:

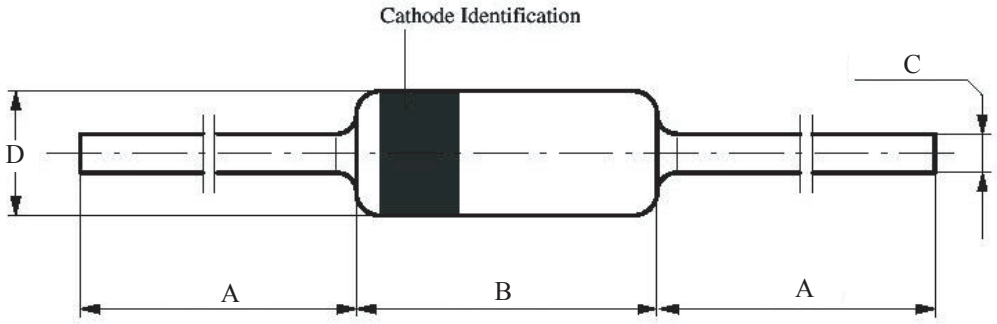
*Case : DO-35 Glass Case
*Weight : Approx 0.13 gram



DO-35

DO-35 Outline Dimensions

Unit:mm



	A		B		C		D	
DIM	Min	Max	Min	Max	Min	Max	Min	Max
DO-35	26.0	-	-	4.20	-	0.55	-	2.0

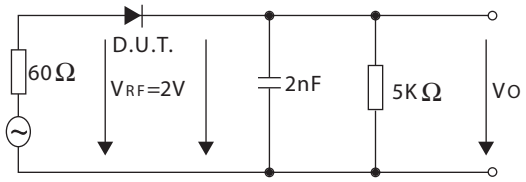
Maximum Ratings (T_A=25 °C Unless otherwise noted)

Characteristic	Symbol	1N4148/ 1N4448	Unit
Non-Repetitive Peak Voltage	V_{RM}	100	V
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{PWM} V_{RWM} V_R	75	V
Average Rectified Output Current (1)	I_O	150	mA
Non-Repetitive Peak Forward Surge Current @t=1.0us	I_{FSM}	2.0	A
Power Dissipation	P_d	500	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	300	K/W
Operating and Strorage Temperature Range	T_J ,T_{STG}	-65 to +175	°C

Electrical Characteristics (T_A=25 °C Unless otherwise noted)

Characteristic	Symbol	Min	Max	Unit
Reverse Breakdown Voltage I_R= 100 ua	$V_{(BR)R}$	100	-	V
Forward Voltage 1N4148 I_F=10 mA 1N4448 I_F=5 mA I_F=100 mA	V_F	0.62	1.0 0.72 1.0	V
Leakage Current V_R=20V V_R=75V V_R=75V, Tj=150°C	I_R	-	25 5 50	nA
Junction Capacitance	Cj	-	4	PF
Reverse Recovery Time I_F=10 mA, I_R=1mA, V_R=6V, R_L=100Ω	Trr	-	4	nS

Note: 1.Valid Provided that device Terminals are Kept at Ambient Temperature.



RECITIFICATION EFFICIENCY MEASUREMENT CIRCUIT

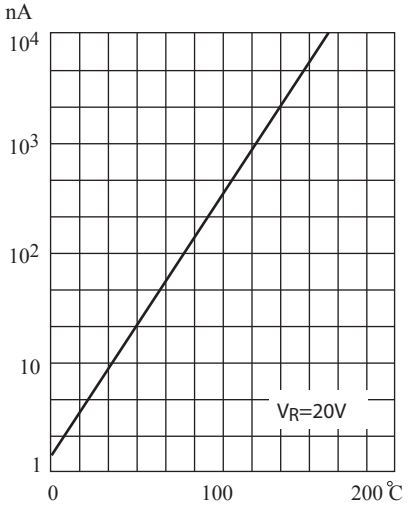


FIG 1, LEAKAGE CURRENT VERSUS JUNCTION TEMPERATURE

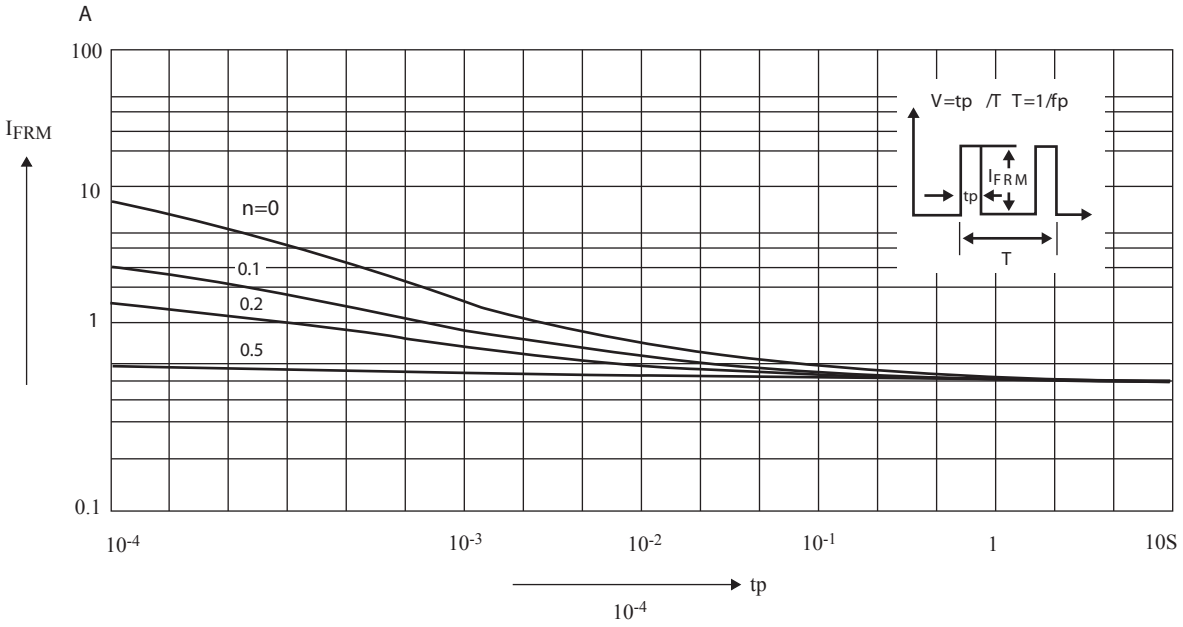


FIG 2, ADMISSIBLE REPETITIVE PEAK FORWARD CURRENT VERSUS PULSE DURATION

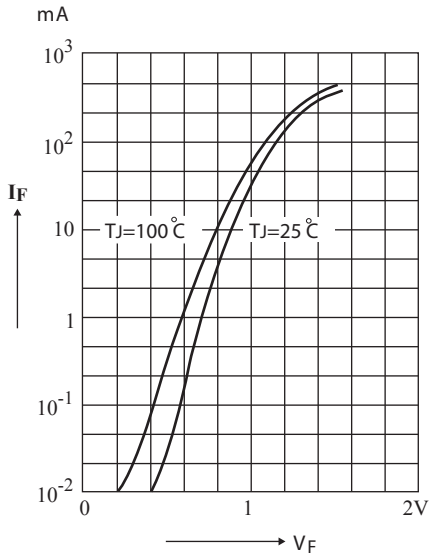


FIG 3, FORWARD CHARACTERISTICS

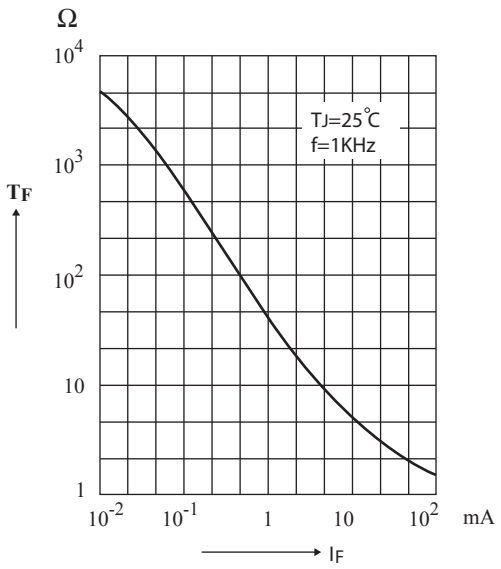


FIG 4, DYNAMIC FORWARD RESISTANCE VERSUS FORWARD CURRENT

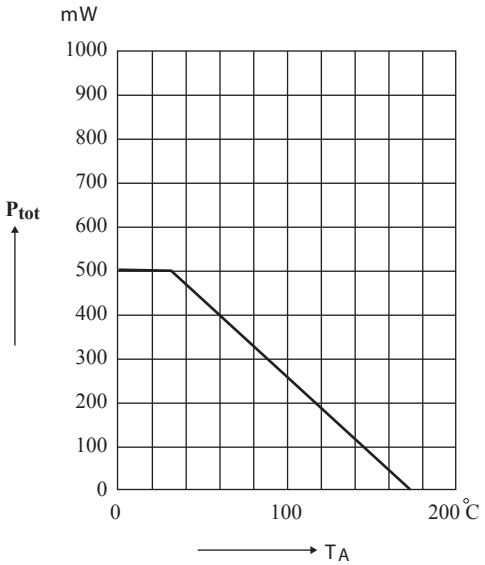


FIG 5, ADMISSIBLE POWER DISSIPATION VERSUS AMBIENT TEMPERATURE

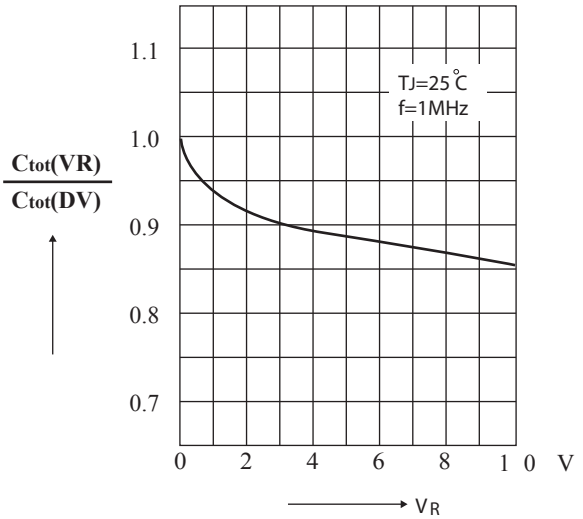


FIG 6, RELATIVE CAPACITANCE VERSUS VOLTAGE