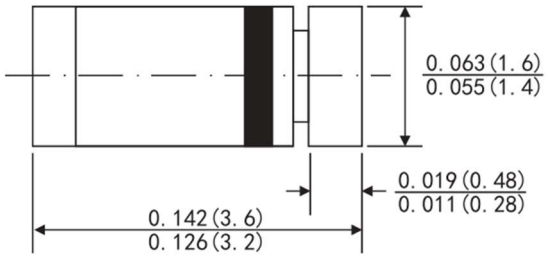
SWITCHING DIODE

REVERSE VOLTAGE: 100 VOLTS
FORWARD CURRENT: 150 mAMPERE

Features

- Silicon Epitaxial Planar Diodes
- Fast switching diodes
- Electrical data identical with the devices 1N4148 and 1N4448 respectively

MiniMelf



Dimensions in inches and (millimeters)

Mechanical Characteristics

- Case: Molded glass MINI-MELF
- Polarity: Color band Indicates Negative Polarity
- Reel: 2500pcs

Applications

- High-speed switching
- General-purpose switching

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

Parameter	Symbol	Value	Unit
Non-Repetitive Peak reverse voltage	V_{RM}	100	V
DC Blocking Voltage	V_R	75	V
Average forward current	$I_{O(AV)}$	150	mA
Non-Repetitive Peak Forward Surge Current t=1.0s	I_{FSM}	500	mA
Power Dissipation	P_D	500	mW
Operating Junction Temperature	T_J	175	℃
Storage Temperature	T_{STG}	-65 ~ +175	℃
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	500	℃/W

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

Parameter	Symbol	Test Condition	Min	Max	Unit
Reverse Leakage Current	I_R	V_R = 20V		25	nA
		V_R = 75V		5	μA
Forward Voltage	V_F	I_F = 10mA		1.0	V
Capacitance	C_{TOT}	V_R = 0, f=1.0MHZ		4	pF
Reverse Recovery Time	T_{RR}	I_F =10mA, V_R = 6V I_{RR} =1mA, R_L = 100Ω		4	ns

Typical Characteristics

FIG 1-FORWARD CHARACTERISTICS

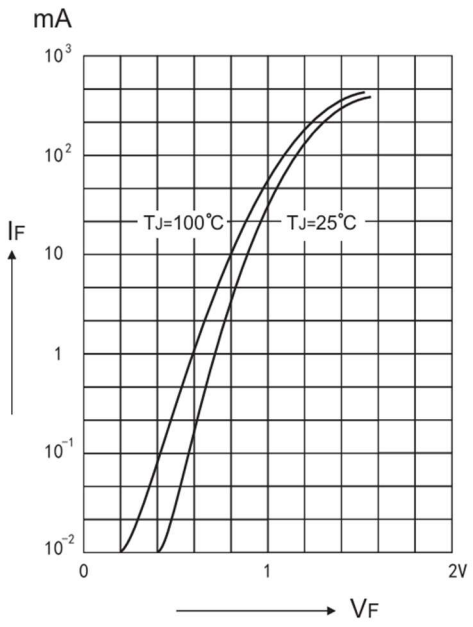


FIG 2: DYNAMIC FORWARD RESISTANCE VERSUS FORWARD CURRENT

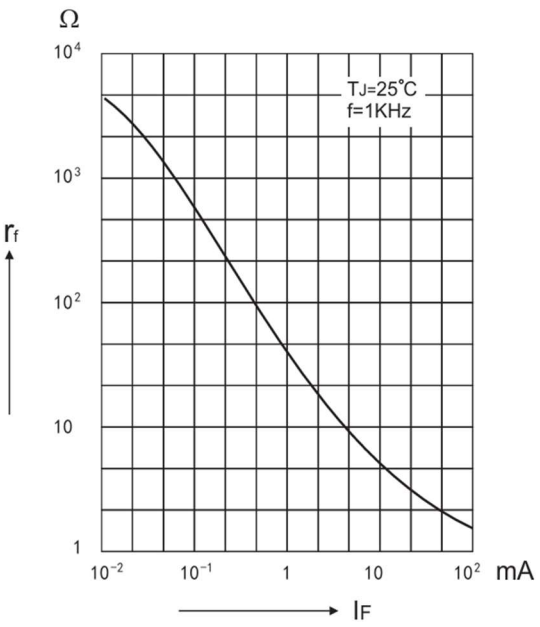


FIG 3-ADMISSIBLE POWER DISSIPATION VERSUS AMBIENT TEMPERATURE

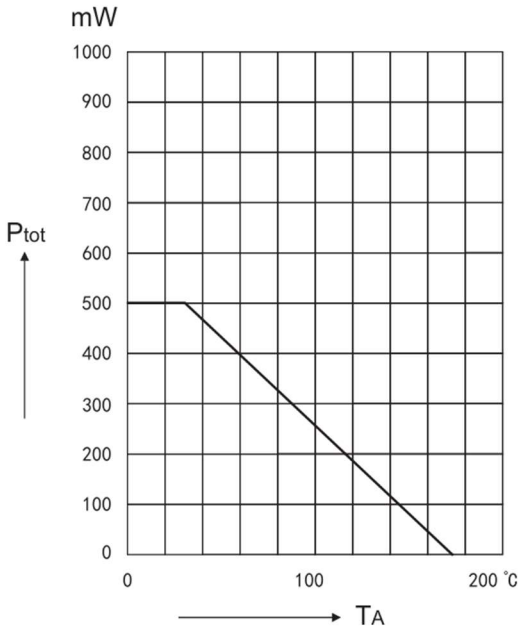


FIG. 4-RELATIVE CAPACITANCE VERSUS VOLTAGE

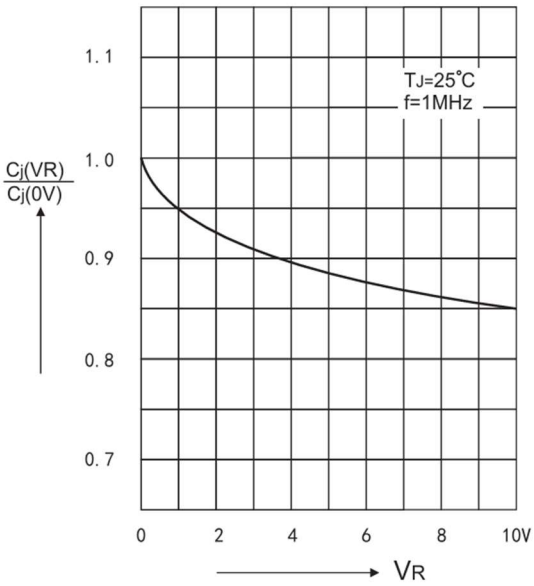


FIG.5 RECTIFICATION EFFICIENCY MEASUREMENT CIRCUIT

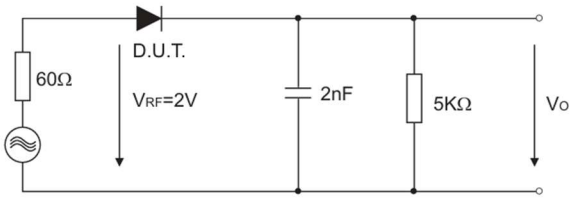


FIG 6: LEAKAGE CURRENT VERSUS JUNCTION TEMPERATURE

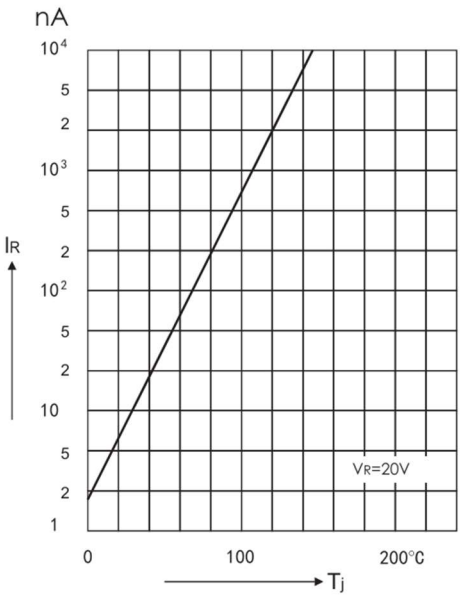


FIG 7: ADMISSIBLE REPETITIVE PEAK FORWARD CURRENT VERSUS PULSE DURATION