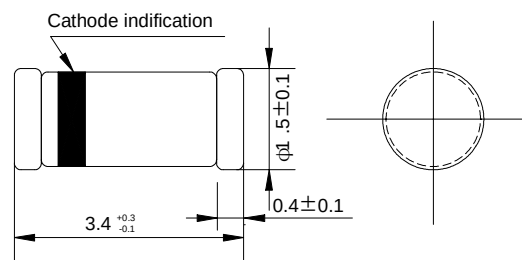


VOLTAGE RANGE: 40V
FORWARD CURRENT: 0.03 A

Features

- ◇ Metal silicon junction majority carrier conduction
- ◇ High current capability, low forward voltage drop
- ◇ Extremely low reverse current I_R
- ◇ Ultra speed switching characteristics
- ◇ Small temperature coefficient of forward characteristics
- ◇ Satisfactory wave detection efficiency
- ◇ For use in RECORDER. TV. RADIO. TELEPHONE as detectors, super high speed switching circuits, small current rectifier

MINI-MELF



Dimensions in millimeters

Mechanical Data

- ◇ Case: JEDEC MINI-MELF
- ◇ Polarity: Color band denotes cathode end
- ◇ Weight: Approx. 0.031 gram

ABSOLUTE RATINGS(LIMITING VALUES)

ABSOLUTE RATINGS (LIMITING VALUES)				
Parameters		Symbols	Value	UNITS
			1N60	
Repetitive peak reverse voltage		V_{RRM}	40.0	V
Forward continuous current	$T_A=25^{\circ}C$	I_F	30.0	mA
Peak forward surge current (t=1s)		I_{FSM}	150.0	mA
Storage and junction temperature range		T_{STG}/T_J	- 55 ---- + 150	$^{\circ}C$
Maximum lead temperature for soldering during 10s at 4mm from case		T_L	230	$^{\circ}C$

ELECTRICAL CHARACTERISTICS

Parameters	Symbols	Test Conditions		Value			UNITS
				Min.	Typ.	Max.	
Forward voltage	V_F	$I_F=1mA$	1N60		0.32	0.5	V
		$I_F=30mA$	1N60		0.65	1.0	
Reverse current	I_R	$V_R=15V$	1N60		0.1	0.5	μA
Junction capacitance	C_J	$V_R=1V$ $f=1MHz$	1N60		2		pF
Detection efficiency (See FIG. 4)	η	$V_I=3V$ $f=30MHz$ $C_L=10pF$ $R_L=3.8K \Omega$			60.0		%
Reverse recovery time	t_{rr}	$I_F=I_R=10mA$ $t_{rr}=1mA$ $R_L=100 \Omega$				1	ns
Thermal resistance, junction to ambient	$R_{\theta JA}$				400		°C/W

Ratings AND Characteristic Curves

FIG.1 – FORWARD CURRENT VERSUS FORWARD VOLTAGE (TYPICAL VALUES)

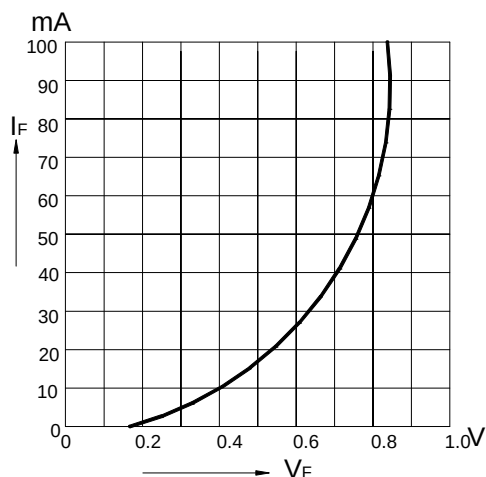


FIG.2 – REVERSE CURRENT VERSUS CONTINUOUS REVERSE VOLTAGE

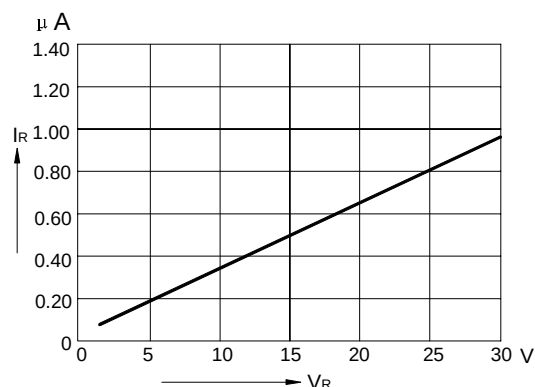


FIG.3 – JUNCTION CAPACITANCE VERSUS CONTINUOUS REVERSE APPLIED VOLTAGE

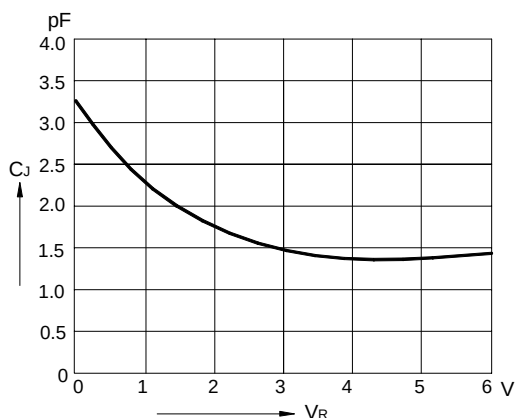
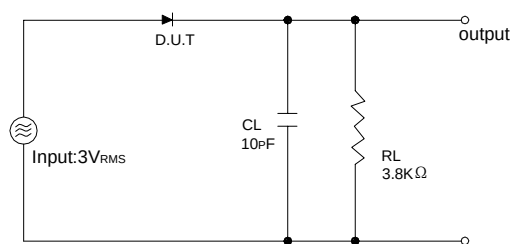


FIG.4 – DETECTION EFFICIENCY MEASUREMENT CIRCUIT



Package	Reel	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)
minimelf	2500pcs	7inch	20000pcs	186×186×105	120,000pcs	443×215×305