

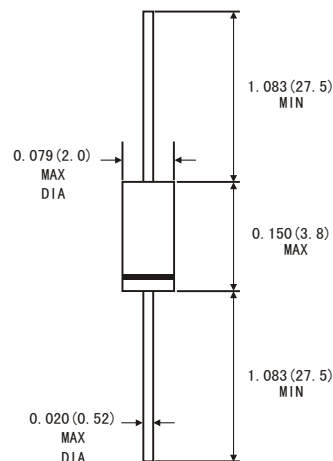
## FEATURES

- Metal-on-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

## MECHANICAL DATA

- **Case:** Mini-MELF glass case(SOD-80)
- **Weight:** Approx. 0.05 gram

## DO-35



Dimensions in inches and (millimeters)

## ABSOLUTE RATINGS(LIMITING VALUES)

Symblos	Parameters		Value	Units
			1SS135	
VRRM	Repetitive Peak Reverse Voltage		20	Volts
IF	Forward Continuous Current	TA=25 °C	30	mA
IFSM	Peak Forward Surge Current(t=1S)		150	mA
TSTG/TJ	Storage and junction Temperature Range		-65 to +125	°C
TL	Maximum Lead Temperature for Soldering during 10S at 4mm from Case		230	°C

## ELECTRICAL CHARACTERISTICS

Symbols	Parameters	Test Conditions	Value			Units
			Min.	Typ.	Max.	
$V_F$	Forward Voltage	$I_F=1\text{mA}$	1SS135	0.35	0.5	Volts
		$I_F=30\text{mA}$	1SS135	0.70	1.0	
		$I_F=200\text{mA}$				
$I_R$	Reverse Current	$V_R=15\text{V}$	1SS135	1.0	5.0	$\mu\text{A}$
$C_J$	Junction Capacitance	$V_R=1\text{V}$ $f=1\text{MHz}$	1SS135	4.0		pF
		$V_R=10\text{V}$ $f=1\text{MHz}$				
$\eta$	Detection Efficiency(See diagram 4)	$V_i=3\text{V}$ $f=30\text{MHz}$ $C_L=10\text{pF}$ $R_L=3.8\text{k}\Omega$		60		%
$t_{rr}$	Reverse Recovery time	$I_F=I_R=1\text{mA}$ $I_{tr}=1\text{mA}$ $R_C=100\Omega$			1	ns
$R_{\theta JA}$	Junction Ambient Thermal Resistance			400		$^\circ\text{C}/\text{W}$

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

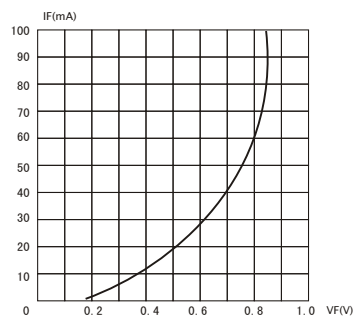


FIG.2-REVERSE CURRENT VERSUS CONTINUOUS REVERSE VOLTAGE

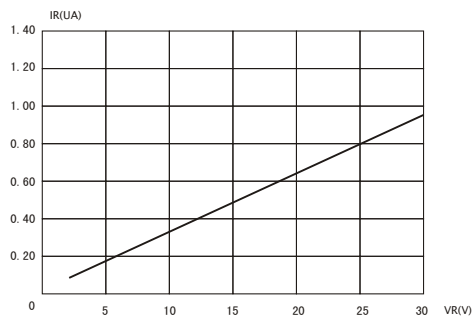


FIG.3-JUNCTION CAPACITANCE VERSUS CONTINUOUS REVERSE APPLIED VOLTAGE

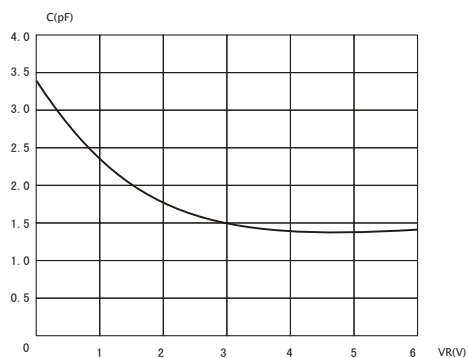


FIG.4-DETECTION EFFICIENCY MEASUREMENT CIRCUIT

