

1N34A

POINT CONTACT GERMANIUM DIODE

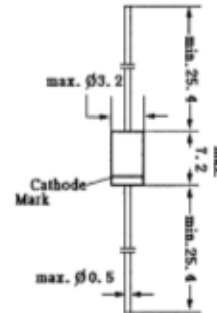
The germanium point contact (Ge) diodes are widely used for detecting the rectifying efficiency or for switching on the radio, TV, or stereo, ect.

Features

- High reliability for resistance to vibration and shock proof.
- High withstand voltage.
- Small reverse current.
- Excellent electrical characteristics suitable for FM detection or MPX.

Application

- FM detection, MPX, projected-image detection, switching, and limiter



Glass case JEDEC DO-7

Dimensions in mm

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

	Symbol	Value	Unit
Peak Reverse Voltage	V_{RM}	45	V
Reverse Voltage dc	V_R	20	V
Peak Forward Current	I_{FM}	150	mA
Average Rectified Output Current	I_O	50	mA
Surge Forward Current	I_{surge}	500	mA
Junction Temperature	T_j	75	$^\circ\text{C}$
Storage Temperature Range	T_s	-55 to +75	$^\circ\text{C}$

Characteristics (1N34A)

	Symbol	Test condition ($T_a 25 \pm 2^\circ\text{C}$)	Min.	Typ.	Max.	Unit
Forward voltage	I_F	$V_F = 1\text{V}$	4	2	-	mA
Reverse currents	I_R	$V_R = -10\text{V}$	-	-	100	μA
	I_{R2}	$V_R = \text{V}$	-	-	-	μA
Junction Capacitance C_j	-	$f = 1\text{MHz}, V = -1\text{V}$	-	-	1	pF
Rectification efficiency	η	$V_i = 2V_{rms}, = 50K\Omega$ $C = 20\text{PF}, f = 40\text{MHz}$	55	-	-	%

Gold Bonded

1N34A

Germanium Diodes

Optimized for Radio Frequency Response

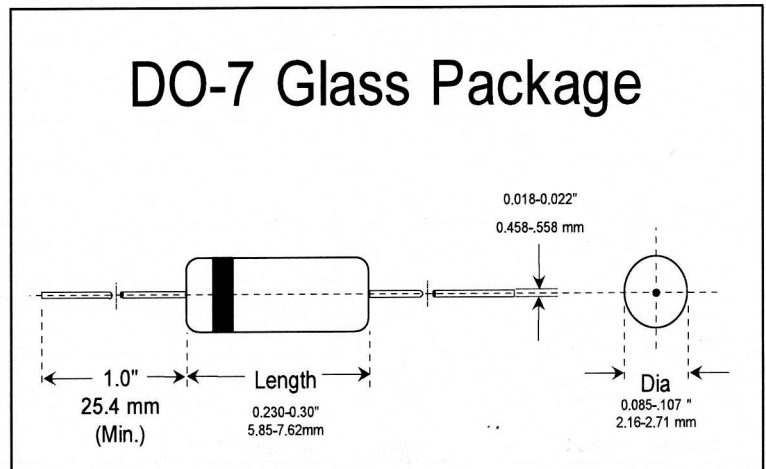
Can be used in many AM, FM and TV-IF applications, replacing point contact devices.

Applications

- AM/FM detectors
- Ratio detectors
- FM discriminators
- TV audio detectors
- RF input probes
- TV video detectors

Features

- Lower leakage current
- Flat junction capacitance
- High mechanical strength
- At least 1 million hours MTBF
- BKC's Sigma-Bond™ plating for problem free solderability



Absolute Maximum Ratings at $T_{amb} = 25\text{ }^{\circ}\text{C}$

Parameter	Symbols	Min.	Max.	Units
Peak Inverse Voltage (Repetitive), Measured @ $I_R = 1\text{ mA}$	PIV	**	65	Volts
Peak Forward Surge Current Non-Repetitive, $t = 1\text{ Second}$	I_{FSM}		0.5	Amps
Peak Forward Surge Current Repetitive	I_{FSR}		200	mA
Average Rectified Forward Current	I_O		50	mA
Operating and Storage Temperatures	$T_{J\&STG}$	-55	+75	$^{\circ}\text{C}$

Electrical Characteristics at $T_{amb} = 25\text{ }^{\circ}\text{C}$

Parameter	Test Conditions	Symbols	Min.	Max.	Units
Forward Voltage Drop	$I_F = 5.0\text{ mA}$	V_F		1.0	Volts
Reverse Leakage	$V_R = 10\text{ Volts}$	I_R		30	μA
	$V_R = 50\text{ Volts}$			500	μA
Breakdown Voltage	$I_R = 1.0\text{ mA}$	PIV	65		Volts