



**Diffused-Junction  
Silicon Rectifiers**

For Industrial and Consumer-Product Applications

*Features:*

- ▣ Cylindrical design with axial leads for simple handling and installation
- ▣ Compact, hermetically sealed metal case (0.405" max. length; 0.240" max. dia.)
- ▣ Insulated types 1N3253, 1N3254, 1N3255, 1N3256, and 1N3563 have transparent, high-dielectric-strength plastic sleeve over metal case

RCA-1N3193, 1N3194, 1N3195, 1N3196, 1N3253, 1N3254, 1N3255, 1N3256, and 1N3563 are hermetically sealed silicon rectifiers of the diffused-junction type utilizing small cylindrical metal cases and axial leads. Types 1N3253, 1N3254, 1N3255, and 1N3256 are insulated versions of types 1N3193, 1N3194, and 1N3196, respectively. Type 1N3563 is an insulated rectifier which does not have an uninsulated equivalent.

- ▣ High maximum forward-current ratings — up to 750 milliamperes at 75 °C
- ▣ Peak-reverse-voltage ratings — 200 to 1000 volts
- ▣ Maximum free-air operating temperature — 100 °C
- ▣ Designed to meet stringent temperature-cycling and humidity requirements of critical industrial and consumer-product applications

**RECTIFIER SERVICE** (For a supply-line frequency of Hz)

**MAXIMUM RATINGS, Absolute-Maximum Values:**

	For resistive or inductive load					r-or capacitor-input filter					
	1N3193 1N3253	1N3194 1N3254	1N3195 1N3255	1N3196 1N3256	1N3563	1N3193 1N3253	1N3194 1N3254	1N3195 1N3255	1N3196 1N3256	1N3563	
PEAK REVERSE VOLTAGE .....	200	400	600	800	1000	200	400	600	800	1000	volts
RMS SUPPLY VOLTAGE .....	140	280	420	560	700	70	140	210	280	350	volts
<b>FORWARD CURRENT:</b>											
For free-air temperatures up to 75°C. For free-air temperatures above 75°C, see Rating Chart.											
DC .....	750	750	750	500	400	500	500	500	400	300	ma
PEAK RECURRENT .....	—	—	—	—	—	6	6	6	5	4	amp
SURGE — For "turn-on" time of 2 milliseconds .....	—	—	—	—	—	35	35	35	35	35	amp
<b>FREE-AIR-TEMPERATURE RANGE:</b>											
Operating .....	←————— -65 to +100 —————→					←————— -65 to +100 —————→					°C
Storage .....	←————— -65 to +175 —————→					←————— -65 to +175 —————→					°C
<b>LEAD TEMPERATURE:</b>											
For 10 seconds maximum .....	←————— 255 —————→					←————— 255 —————→					°C

**Characteristics, At a Free-Air Temperature of 25°C:**

	1N3193 1N3253	1N3194 1N3254	1N3195 1N3255	1N3196 1N3256	1N3563	
Maximum Instantaneous Forward Voltage Drop at dc forward current of 0.5 ampere .....	1.2	1.2	1.2	1.2	1.2	volts
Maximum Reverse Current:						
Dynamic, at T <sub>FA</sub> = 75°C*	0.2	0.2	0.2	0.2	0.2	ma
Static, at T <sub>FA</sub> = 25°C**	0.005	0.005	0.005	0.005	0.005	ma

\*At max. peak reverse voltage and max. dc forward current.

\*\*At max. peak reverse voltage and zero forward current.