

# RECTIFIERS

## High Voltage, Low Current

1N645, 1N647; JAN, JANTX 1N645, 1N647  
 JAN, JANTX & JANTXV 1N645-1, 1N647-1

### FEATURES

- Metallurgical Bond
- Qualified to MIL-S-19500/240
- Planar Passivated Chip
- DO-35 or DO-7 Package

### DESCRIPTION

These devices are useful in general purpose low current applications in high reliability and military equipment.

8

### ABSOLUTE MAXIMUM RATINGS. AT 25°C

	1N645 JAN 1N645 JAN 1N645-1	1N647 JAN 1N647 JAN 1N647-1
Reverse Breakdown Voltage	270V	480V
Peak Working Voltage	225V	400V
Average Output Current, 25°C*	400mA	
150°C	150mA	
Surge Current, 8.3ms, 150°C	5A	
Operating Temperature Range	-65°C to +175°C	
Storage Temperature Range	-65°C to +200°C	

\*Derate 2.0mA/°C between 25°C and 150°C.

### MECHANICAL SPECIFICATIONS

**J, JTX 1N645, 1N647  
 J, JTX, & JTXV 1N645-1, 1N647-1**

**J, JTX 1N645, 1N647  
 J, JTX, & JTXV 1N645-1, 1N647-1**

	INCHES	MILLIMETERS
A	0.55 - 1.30	1.40 - 3.30
B	.140 - .300	3.56 - 7.62
C	1.0 MIN - 1.5 MAX	25.4 MIN - 38.1 MAX
D	.018 - .023	.46 - .58

**DO-7  
 1N645  
 1N647  
 1N647-1**

**DO-35  
 1N645-1**

**ELECTRICAL SPECIFICATIONS (at 25°C unless noted)**

Type	Reverse Current @ 25°C	Reverse Current @ 150°C	Peak Reverse Current @ 25°C	Average Reverse Current @ 150°C	Forward Voltage @ 25°C	Capacitance
1N645 JAN 1N645	0.025μA @ 225Vdc	15μA <sub>dc</sub> @ 225Vdc	100μA (pk) @ 270V (pk)	100μA <sub>dc</sub> @ 225V (pk)	1.0Vdc @ I <sub>F</sub> = 400mA <sub>dc</sub> 8.3ms	20pF V <sub>R</sub> = 4 Vdc f = 1MHz V <sub>sig</sub> = 50mV
JAN 1N645-1	0.050μA @ 225Vdc	25μA <sub>dc</sub> @ 225Vdc	50 (pk) @ 270V (pk)	100μA <sub>dc</sub> @ 225V (pk)		
1N647 JAN 1N647	0.025μA @ 400Vdc	15μA <sub>dc</sub> @ 400V	100μA (pk) @ 480V (pk)	100μA <sub>dc</sub> @ 400V (pk)		
JAN 1N647-1	0.050μA @ 400Vdc	25μA <sub>dc</sub> @ 400V	50 (pk) @ 480V (pk)	100μA <sub>dc</sub> @ 400V (pk)		

