



# CHENMKO ENTERPRISE CO.,LTD

Lead free devices

## FAST RECOVERY RECTIFIER

VOLTAGE RANGE 200 - 1000 Volts CURRENT 1.0 Ampere

1N4942PT

THRU

1N4948PT

### FEATURES

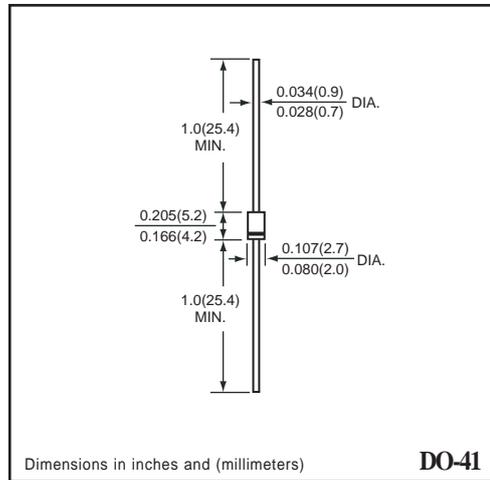
- \* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- \* High switching capability
- \* Low leakage
- \* Low forward voltage drop
- \* High current capability
- \* High surge current capability

### MECHANICAL DATA

**Case:** JEDEC DO-41 molded plastic  
**Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026  
**Polarity:** Color band denotes cathode end  
**Mounting Position:** Any  
**Weight:** 0.33 gram



DO-41



DO-41

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.  
 Single phase, half wave, 60 Hz, resistive or inductive load.  
 For capacitive load, derate current by 20%.

MAXIMUM RATINGS ( At TA = 25°C unless otherwise noted )

RATINGS	SYMBOL	1N4942PT	1N4944PT	1N4946PT	1N4947PT	1N4948PT	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	200	400	600	800	1000	Volts
Maximum RMS Voltage	VRMS	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	Vdc	200	400	600	800	1000	Volts
Maximum Average Forward Current at TA = 75°C	Io	1.0					Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	30					Amps
Typical Junction Capacitance (Note 1)	CJ	15					pF
Operating and Storage Temperature Range	TJ,STG	-65 to +150					°C

ELECTRICAL CHARACTERISTICS ( At TA = 25°C unless otherwise noted )

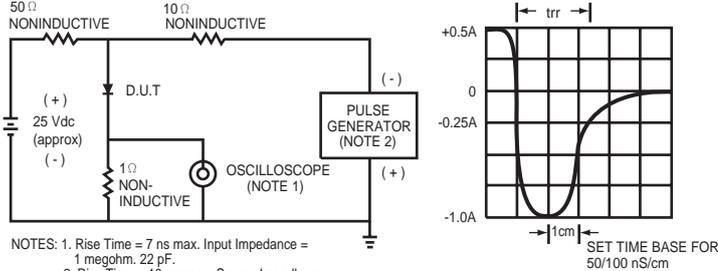
CHARACTERISTICS	SYMBOL	1N4942PT	1N4944PT	1N4946PT	1N4947PT	1N4948PT	UNITS
Maximum Instantaneous Forward Voltage at 1.0 A DC	VF	1.3					Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage at TA = 25°C	IR	5.0					uAmps
Maximum Full Load Reverse Current Average, Full Cycle 0.375" (9.5mm) lead length at TL = 55°C		100					uAmps
Maximum Reverse Recovery Time (Note 2)	trr	150		250		500	nSec

NOTES : 1. Measured at 1.0 MHz and applied reverse voltage of 4.0 volts  
 2. Test Conditions : IF = 0.5 A, IR = -1.0 A, IRR = -0.25 A

2001-6

# RATING CHARACTERISTIC CURVES ( 1N492PT THRU 1N498PT )

FIG. 1 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES: 1. Rise Time = 7 ns max. Input Impedance = 1 megohm, 22 pF.  
2. Rise Time = 10 ns max. Source Impedance = 50 ohms.

FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

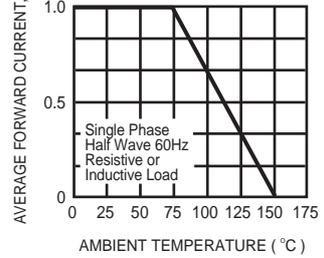


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

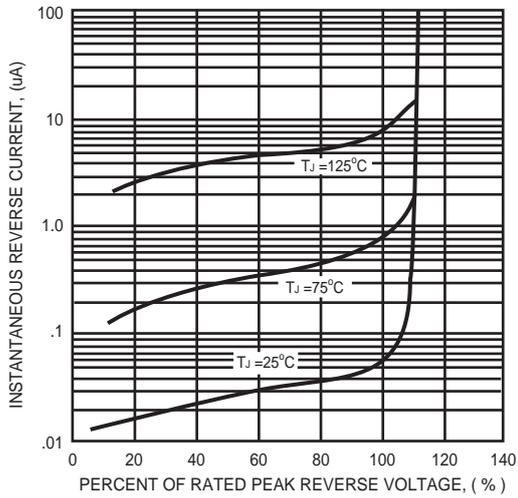


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

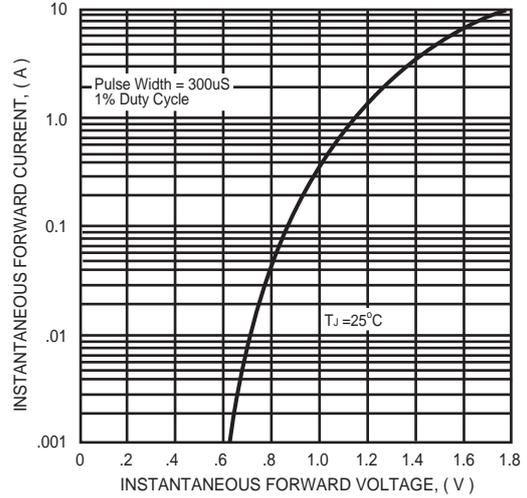


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

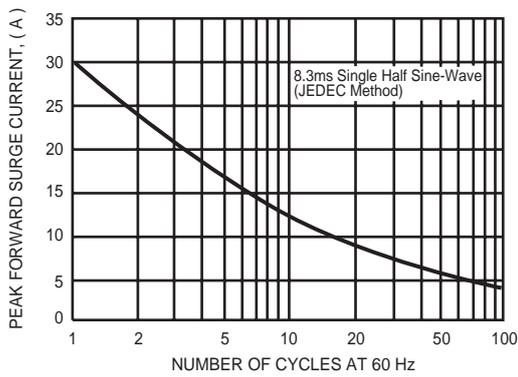


FIG. 6 - TYPICAL JUNCTION CAPACITANCE

