



# CHENMKO ENTERPRISE CO.,LTD

**UF2001PT  
THRU  
UF2007PT**

*Lead free devices*

## HIGH EFFICIENCY RECTIFIER

VOLTAGE RANGE 50 - 1000 Volts CURRENT 2.0 Amperes

### FEATURES

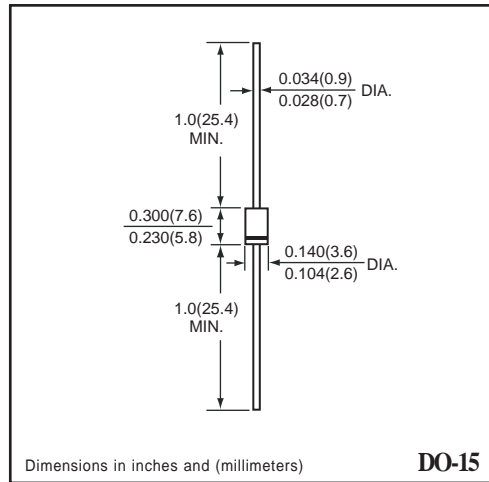
- \* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- \* Low power loss, high efficiency
- \* Low leakage
- \* Low forward voltage drop
- \* High current capability
- \* High surge capability
- \* High speed switching
- \* High reliability

### MECHANICAL DATA

**Case:** JEDEC DO-15 molded plastic  
**Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026  
**Polarity:** Color band denotes cathode end  
**Mounting Position:** Any  
**Weight:** 0.38 gram



DO-15



DO-15

### 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	UF2001P	UF2002PT	UF2003PT	UF2004PT	UF2005PT	UF2006PT	UF2007PT	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	Vdc	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current 0.375" (9.5mm) Lead Length TA = 55°C	Io	2.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	60							Amps
Typical Junction Capacitance (Note 1)	CJ	30					17		pF
Maximum Thermal Resistance (Note 2)	R θJL	12							°C / W
	R θJA	40							°C / W
Operating and Storage Temperature Range	TJ, TSTG	-55 to +150							°C

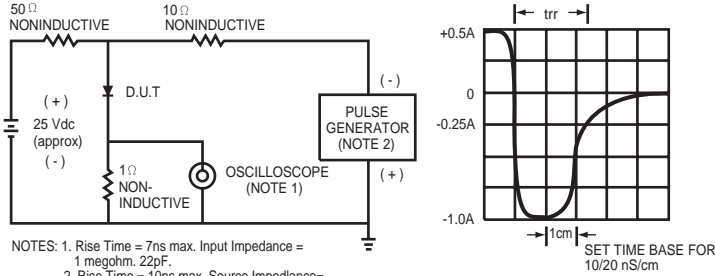
#### ELECTRICAL CHARACTERISTICS ( At TA = 25°C unless otherwise noted )

CHARACTERISTICS	SYMBOL	UF2001P	UF2002PT	UF2003PT	UF2004PT	UF2005PT	UF2006PT	UF2007PT	UNITS
Maximum Instantaneous Forward Voltage at 2.0 A DC	VF	1.0			1.3		1.7		Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	IR	10							uAmps
		50							uAmps
Maximum Reverse Recovery Time (Note 3)	trr	50				75			nSec

NOTES : 1. Measured at 1.0 MHz and applied reverse voltage of 4.0 volts  
 2. Thermal Resistance from Junction to Ambient, and from junction to lead length 0.375" (9.5mm) P.C.B. mounted.  
 3. Test Conditions : IF = 0.5 A, IR = -1.0 A, IRR = -0.25 A

# RATING CHARACTERISTIC CURVES ( UF2001PT THRU UF2007PT )

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



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

FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

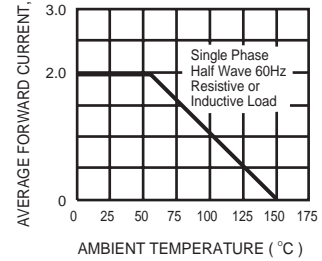


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

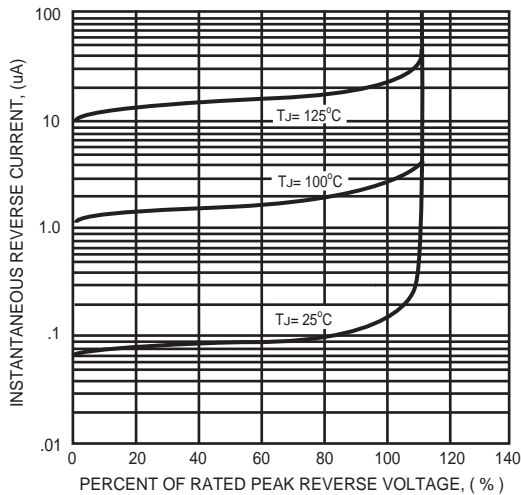


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

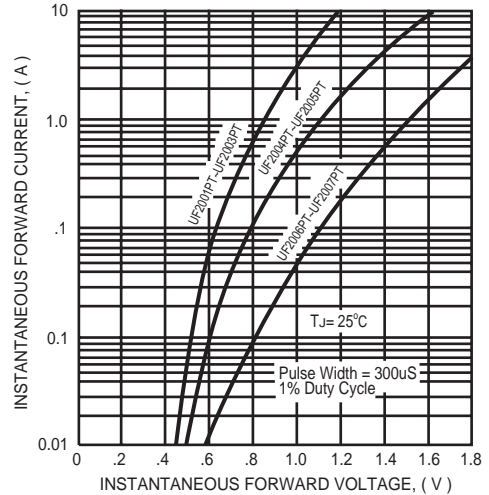


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

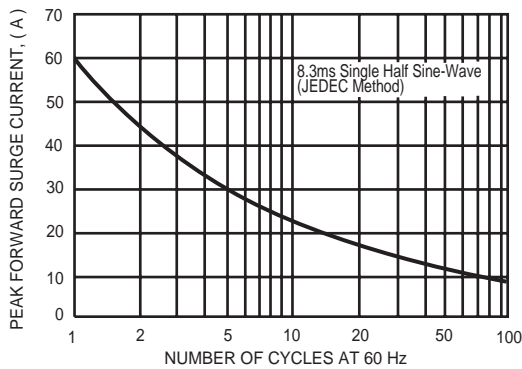


FIG. 6 - TYPICAL JUNCTION CAPACITANCE

