



CHENMKO ENTERPRISE CO.,LTD

**SURFACE MOUNT GLASS PASSIVATED
SUPER FAST SILICON RECTIFIER**

VOLTAGE RANGE 50 - 1000 Volts CURRENT 3.0 Amperes

Lead free devices

**UPL31PT
THRU
UPL38PT**

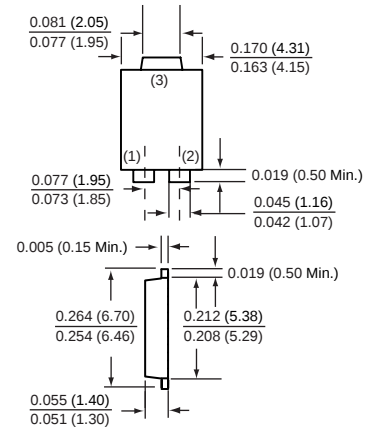
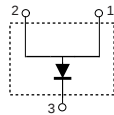
PROVISIONAL SPEC.

FEATURE

- * Small Surface Mounting Type. (SMP)
- * Low forward voltage, high current capability
- * Low leakage current
- * Glass passivated junction
- * High temperature soldering guaranteed :
260°C/10 seconds at terminals

SMP

CIRCUIT



Dimensions in inches and (millimeters)

SMP

MAXIMUM RATINGS (At $T_A = 25^\circ\text{C}$ unless otherwise noted)

RATINGS	SYMBOL	UPL31PT	UPL32PT	UPL33PT	UPL34PT	UPL35PT	UPL36PT	UPL37PT	UPL38PT	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	300	400	600	800	1000	Volts
Maximum RMS Voltage	V _{RMS}	35	70	140	210	280	420	560	700	Volts
Maximum DC Blocking Voltage	V _{DC}	50	100	200	300	400	600	800	1000	Volts
Maximum Average Forward Rectified Current T _L = 90°C	I _o	3.0								Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	80								Amps
Typical Junction Capacitance (Note 1)	C _J	50					30			pF
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +150								°C

ELECTRICAL CHARACTERISTICS (At $T_A = 25^\circ\text{C}$ unless otherwise noted)

CHARACTERISTICS		SYMBOL	UPL31PT	UPL32PT	UPL33PT	UPL34PT	UPL35PT	UPL36PT	UPL37PT	UPL38PT	UNITS
Maximum Instantaneous Forward Voltage at 3.0 A DC		V _F	0.95				1.27	1.75			Volts
Maximum DC Reverse Current	@ TA = 25°C	I _R	5.0								μAmps
at Rated DC Blocking Voltage	@ TA = 100°C		200								μAmps
Maximum Reverse Recovery Time (Note 2)		t _{rr}	35					45			nSec

NOTES : 1. Measured at 1.0 MHz and applied reverse voltage of 4.0 volts
2. Test Conditions : $I_F = 0.5 \text{ A}$, $I_R = -1.0 \text{ A}$, $I_{RR} = -0.25 \text{ A}$

2004-7

RATING CHARACTERISTIC CURVES (UPL31PT THRU UPL38PT)

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

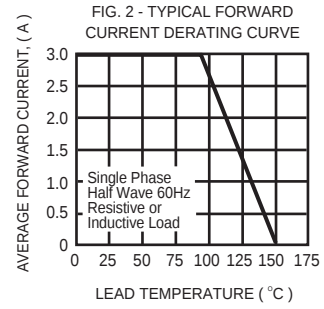
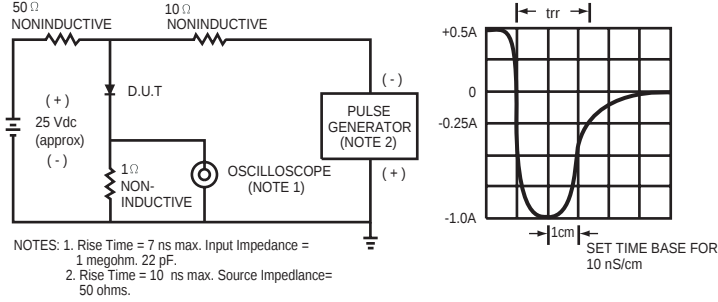


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

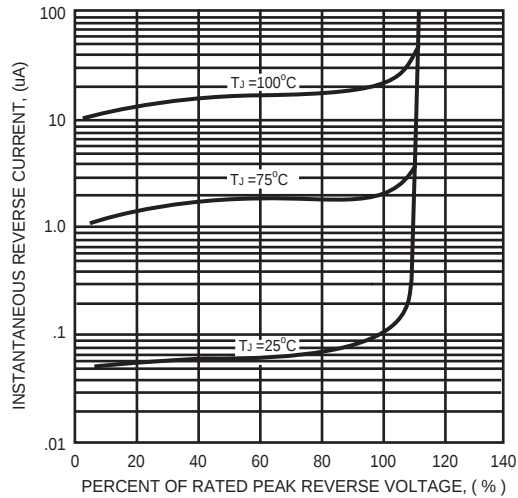


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

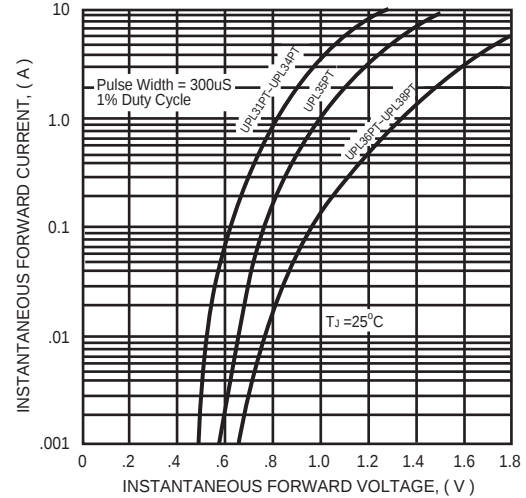


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

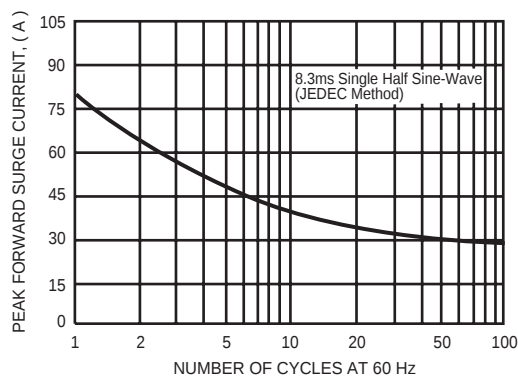


FIG. 6 - TYPICAL JUNCTION CAPACITANCE

