



CHENMKO ENTERPRISE CO.,LTD

Lead free devices

SURFACE MOUNT GLASS PASSIVATED SUPER FAST SILICON RECTIFIER

VOLTAGE RANGE 50 - 1000 Volts CURRENT 2.0 Amperes

**UPL21PT
THRU
UPL28PT**

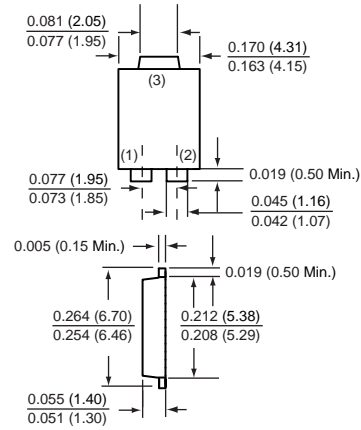
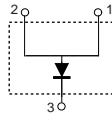
PROVISIONAL SPEC.

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



SMP

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

| RATINGS | SYMBOL | UPL21PT | UPL22PT | UPL23PT | UPL24PT | UPL25PT | UPL26PT | UPL27PT | UPL28PT | 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 = 100°C | I _O | 2.0 | | | | | | | | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | I _{FSM} | 50 | | | | | | | | Amps |
| Typical Junction Capacitance (Note 1) | C _J | 30 | | | | 20 | | | | pF |
| Operating and Storage Temperature Range | T _J , T _{STG} | -65 to +150 | | | | | | | | °C |

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

| CHARACTERISTICS | SYMBOL | UPL21PT | UPL22PT | UPL23PT | UPL24PT | UPL25PT | UPL26PT | UPL27PT | UPL28PT | UNITS |
|--|-----------------|---------|---------|---------|---------|---------|---------|---------|---------|-------|
| Maximum Instantaneous Forward Voltage at 2.0 A DC | V _F | 0.95 | | | 1.27 | | 1.75 | | | Volts |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | @ TA = 25°C | 5.0 | | | | | | | | uAmps |
| | @ TA = 100°C | 100 | | | | | | | | uAmps |
| 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 A, I_R = -1.0 A, I_{RR} = -0.25 A

2004-7

RATING CHARACTERISTIC CURVES (UPL21PT THRU UPL28PT)

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

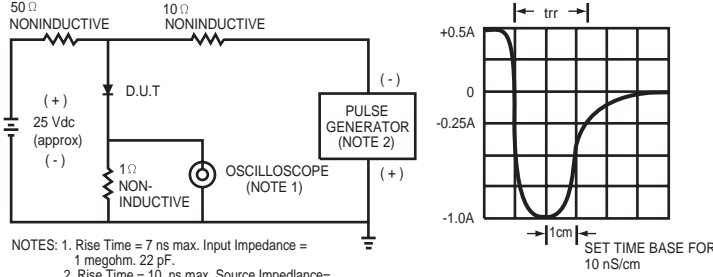


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

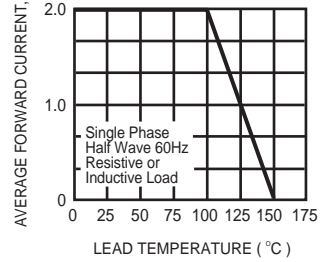


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

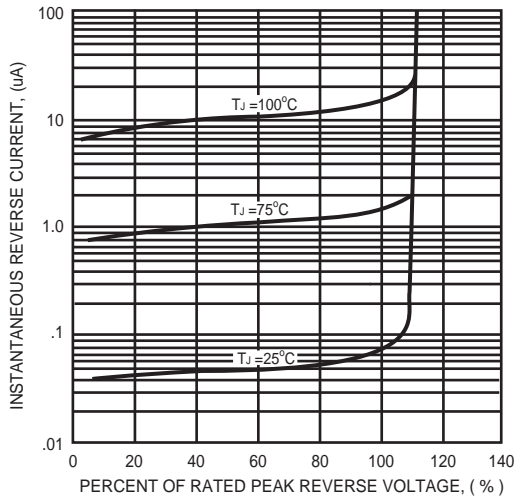


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

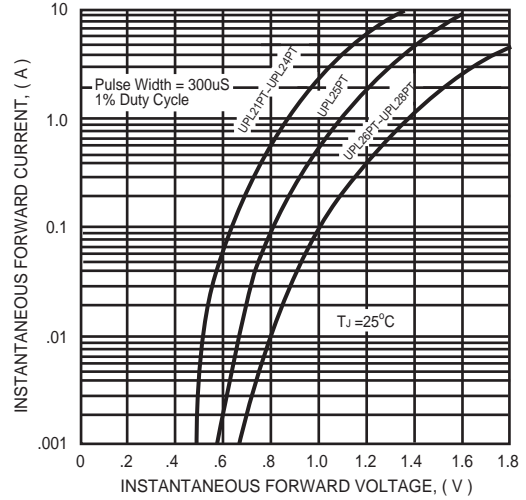


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

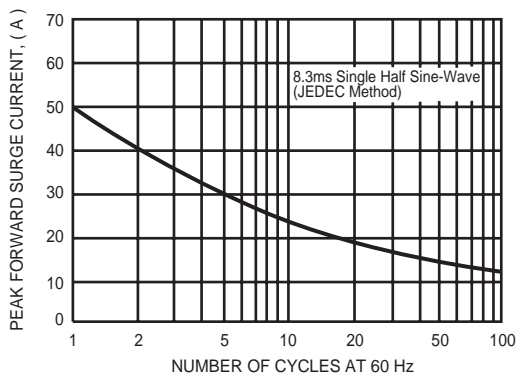


FIG. 6 - TYPICAL JUNCTION CAPACITANCE

