



CHENMKO ENTERPRISE CO.,LTD

GLASS PASSIVATED

FAST RECOVERY RECTIFIER

VOLTAGE RANGE 50 - 1000 Volts CURRENT 1.0 Ampere

**FR101GPT
THRU
FR107GPT**

Lead free devices

FEATURES

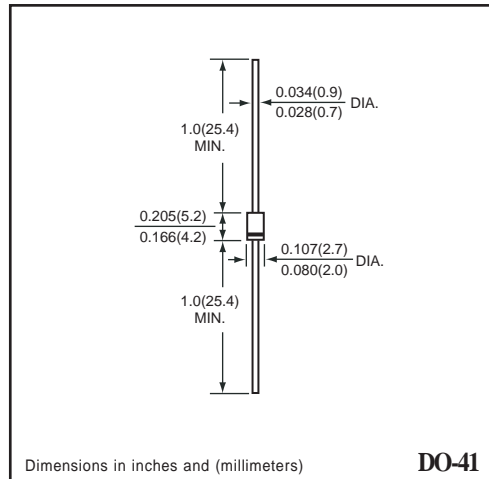
- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- * High reliability
- * Low leakage
- * Low forward voltage drop
- * High current capability
- * High surge capability
- * Fast switching
- * Glass passivated junction

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: 0.35 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 | FR101GPT | FR102GPT | FR103GPT | FR104GPT | FR105GPT | FR106GPT | FR107GPT | 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 Current at TA = 55°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 +175 | | | | | | | °C |

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

| CHARACTERISTICS | SYMBOL | FR101GPT | FR102GPT | FR103GPT | FR104GPT | FR105GPT | FR106GPT | FR107GPT | 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

RATING CHARACTERISTIC CURVES (FR101GPT THRU FR107GPT)

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

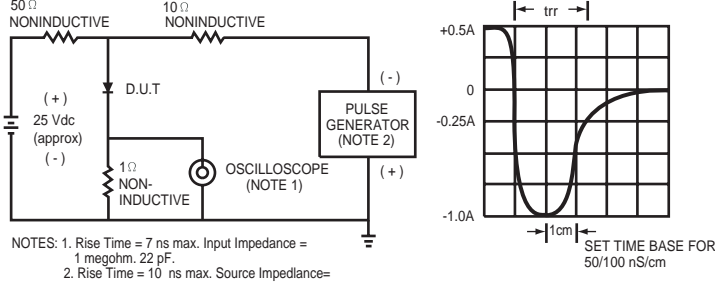


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

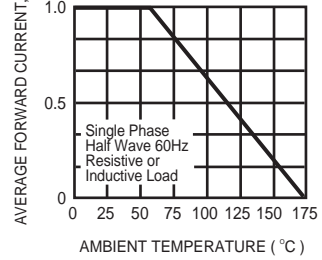


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

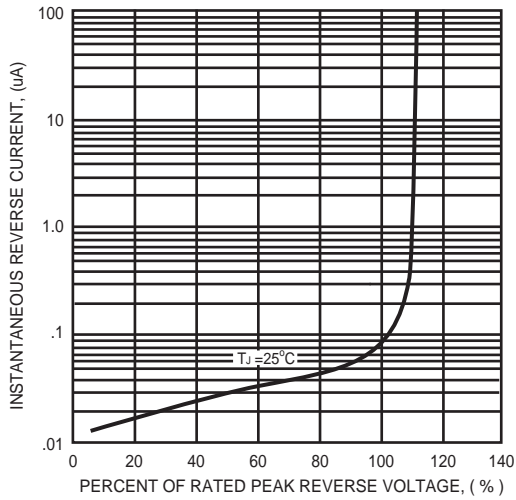


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

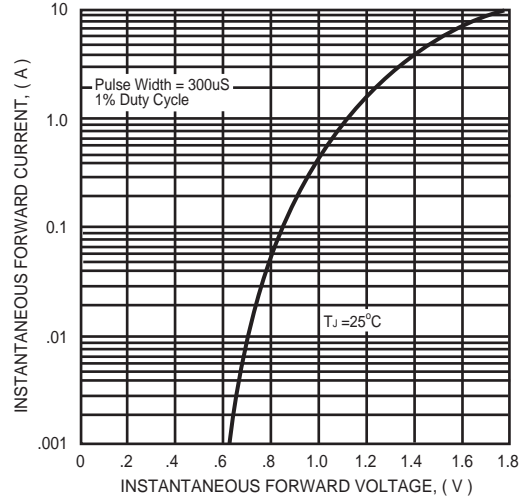


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

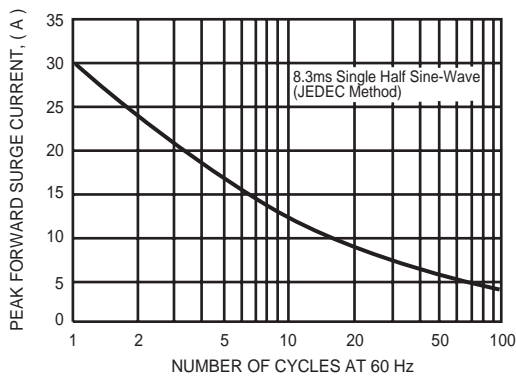


FIG. 6 - TYPICAL JUNCTION CAPACITANCE

