



CHENMKO ENTERPRISE CO.,LTD

Lead free devices

GLASS PASSIVATED FAST RECOVERY RECTIFIER

VOLTAGE RANGE 50 - 1000 Volts CURRENT 1.5 Amperes

FR151GPT
THRU
FR157GPT

FEATURES

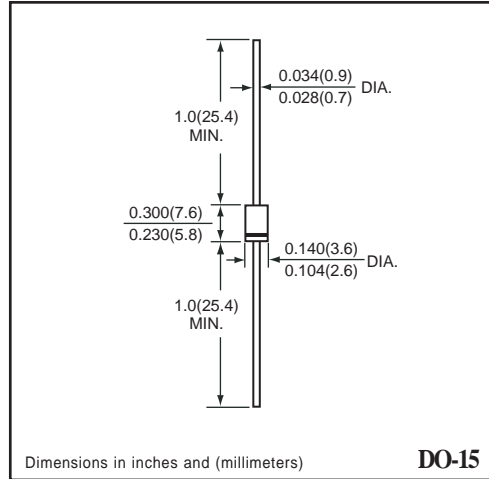
- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- * High reliability
- * Low leakage
- * Low forward voltage drop
- * High current capability
- * Glass passivated junction
- * High switching capability

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								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	1.5							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	20							pF
Operating and Storage Temperature Range	TJ,STG	-65 to +175							°C

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

CHARACTERISTICS	SYMBOL	FR151GPT	FR152GPT	FR153GPT	FR154GPT	FR155GPT	FR156GPT	FR157GPT	UNITS
Maximum Instantaneous Forward Voltage at 1.5 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 (FR151GPT THRU FR157GPT)

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

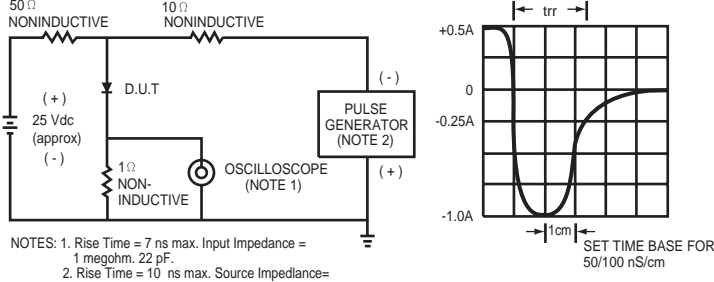


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

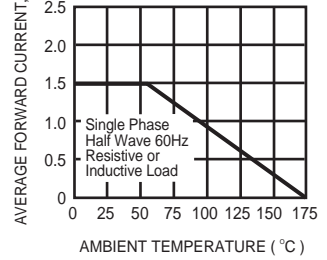


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

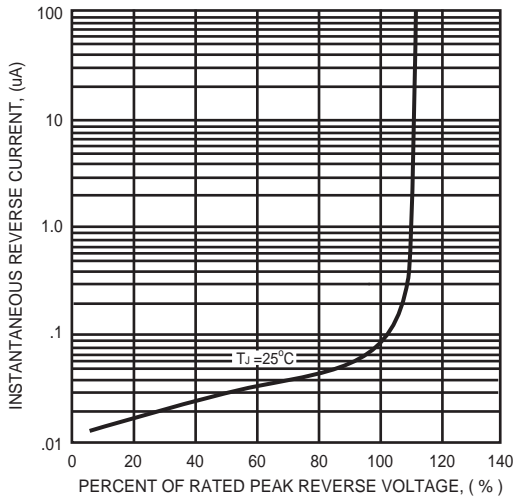


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

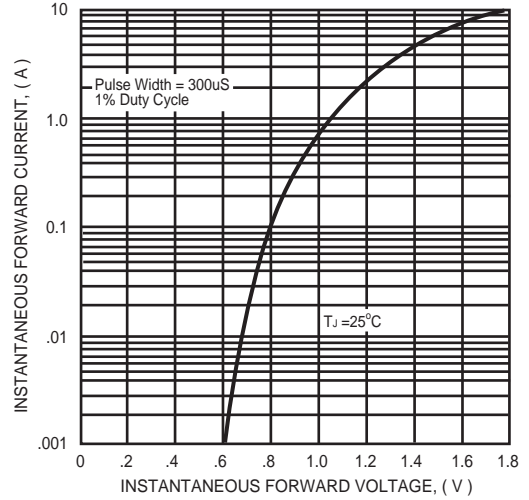


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

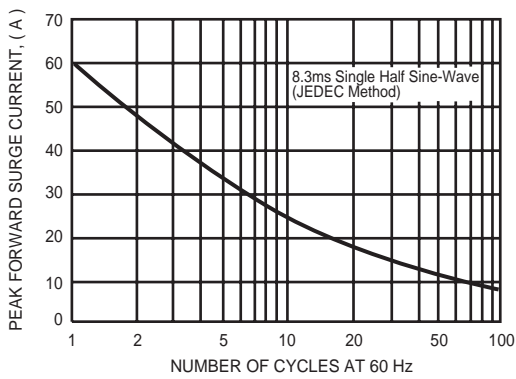


FIG. 6 - TYPICAL JUNCTION CAPACITANCE

