CHENMKO ENTERPRISE CO.,LTD

SILICON RECTIFIER

VOLTAGE RANGE 1200 - 2000 Volts CURRENT 0.2 to 0.5 Ampere

R1200FPT
THRU
R2000FPT

Lead free devices

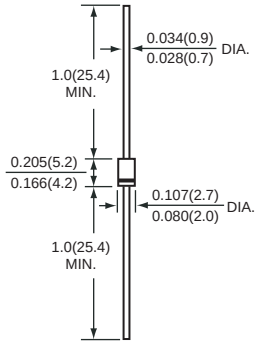
FEATURES

* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
* Fast switching
* Low leakage
* High current capability
* High surge capability
* High reliability

DO-41

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



Dimensions in inches and (millimeters)

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 RATINGES (At T_A = 25°C unless otherwise noted)

RATINGS	SYMBOL	R1200FPT	R1500FPT	R1800FPT	R2000FPT	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	1200	1500	1800	2000	Volts
Maximum RMS Voltage	V_{RMS}	840	1050	1260	1400	Volts
Maximum DC Blocking Voltage	V_{DC}	1200	1500	1800	2000	Volts
Maximum Average Forward Rectified Current at T_A = 50°C	I_O	500			200	mAmps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30				Amps
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +175				°C

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

CHARACTERISTICS	SYMBOL	R1200FPT	R1500FPT	R1800FPT	R2000FPT	UNITS
Maximum Instantaneous Forward Voltage at 0.5A/0.2A DC	V_F	2.5			4.0	Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage T_A = 25°C	I_R	5.0				uAmps
Maximum Full Load Reverse Current Average, Full Cycle 0.375" (9.5mm) lead length at T_L = 75°C		100				uAmps
Maximum Reverse Recovery Time (NOTE)	trr	500				nS

NOTES : Test Conditions : I_F = 0.5 A, I_R = -1.0 A, I_{RR} = -0.25 A

RATING CHARACTERISTIC CURVES (R1200FPT THRU R2000FPT)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

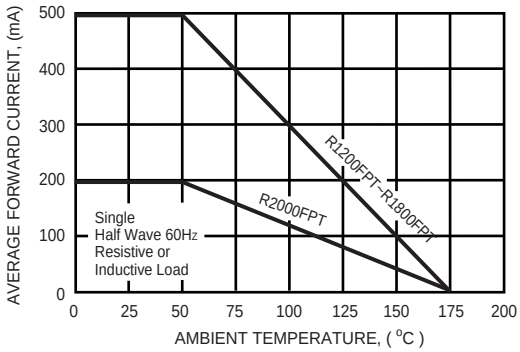


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

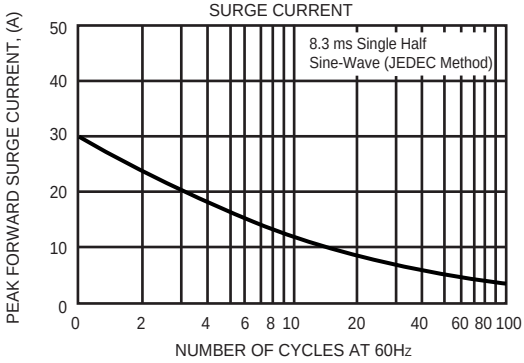
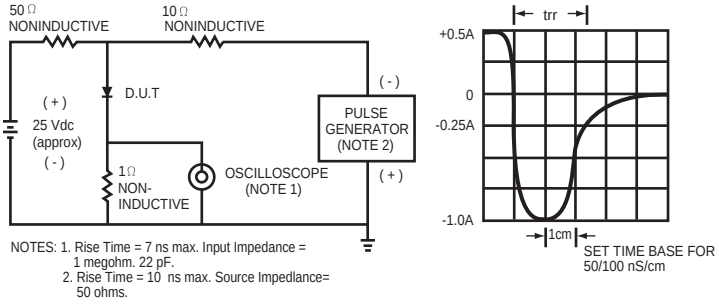


FIG. 3 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



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