CHENMKO ENTERPRISE CO.,LTD

SOFT RECOVERY

FAST SWITCHING RECTIFIER

VOLTAGE RANGE 50 - 800 Volts CURRENT 3.0 Amperes

SFR301PT

THRU

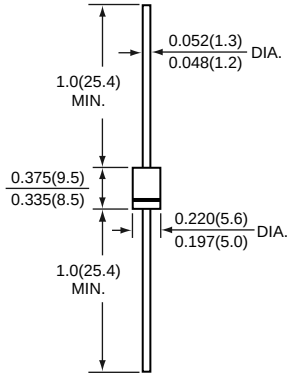
SFR306PT

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

DO-201AD



Dimensions in inches and (millimeters)

DO-201AD

MECHANICAL DATA

Case: JEDEC DO-201AD molded plastic
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight: 1.80 grams

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	SFR301PT	SFR302PT	SFR303PT	SFR304PT	SFR305PT	SFR306PT	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	Volts
Maximum Average Forward Current at T_A = 55°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}	150						Amps
Typical Junction Capacitance (Note 1)	C_J	65						pF
Operating Temperature Range	T_J	-65 to +125						°C
Storage Temperature Range	T_{STG}	-65 to +150						°C

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

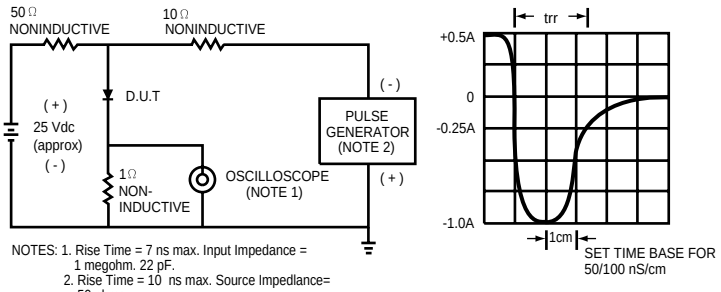
CHARACTERISTICS	SYMBOL	SFR301PT	SFR302PT	SFR303PT	SFR304PT	SFR305PT	SFR306PT	UNITS
Maximum Instantaneous Forward Voltage at 3.0 A DC	V_F	1.3						Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage at T_A = 25°C	I_R	10						uAmps
Maximum Full Load Reverse Current Average, Full Cycle 0.375" (9.5mm) lead length at T_L = 55°C		150						uAmps
Maximum Reverse Recovery Time (Note 2)	trr	100		150		200		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

2001-6

RATING CHARACTERISTIC CURVES (SFR301PT THRU SFR306PT)

FIG. 1 - 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.

FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

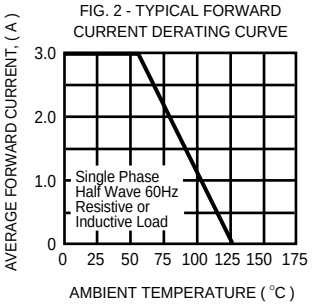


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

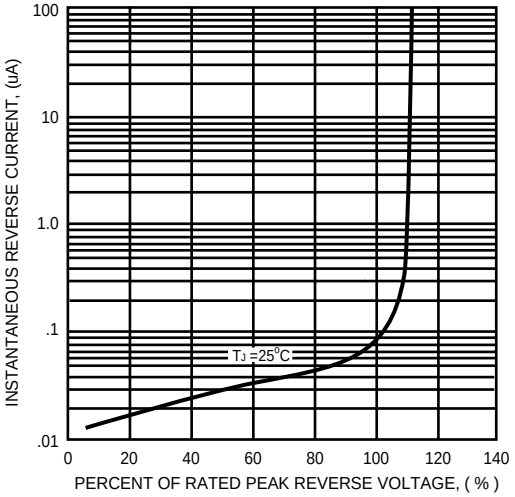


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

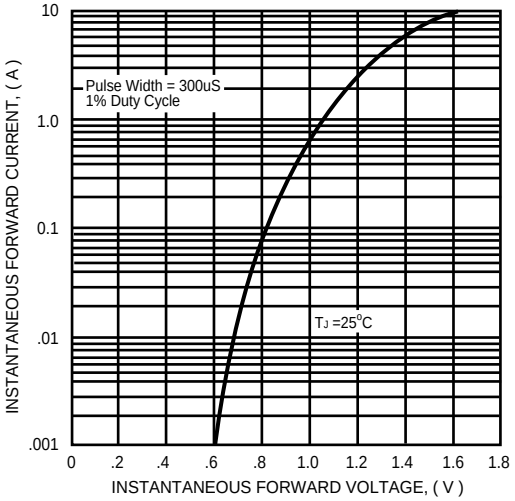


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

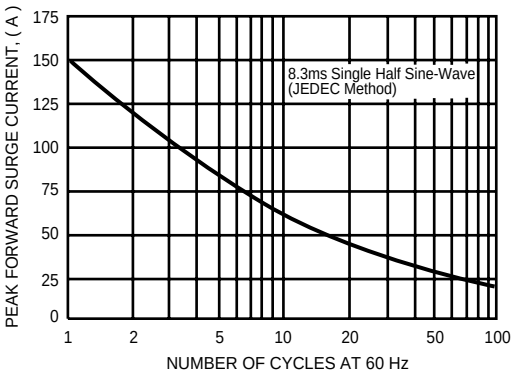


FIG. 6 - TYPICAL JUNCTION CAPACITANCE