



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

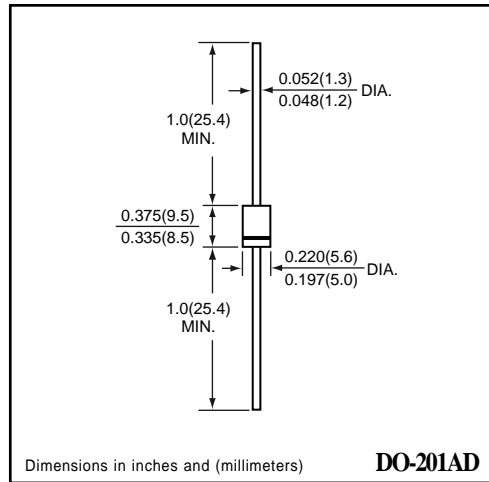
- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- * High reliability
- * Low leakage
- * Low forward voltage drop
- * High current capability
- * High surge capability
- * Fast switching

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



DO-201AD



DO-201AD

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	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 TA = 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

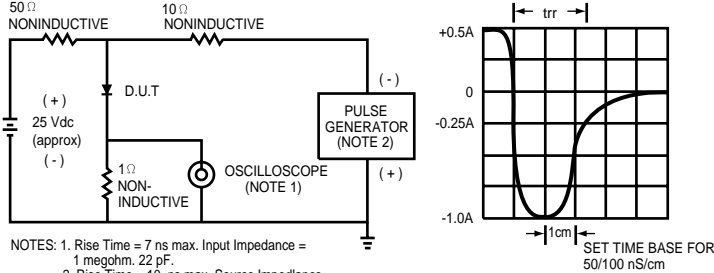
ELECTRICAL CHARACTERISTICS (At TA = 25°C unless otherwise noted)

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 TA = 25°C	I _R	10						uAmps
Maximum Full Load Reverse Current Average, Full Cycle 0.375" (9.5mm) lead length at TL = 55°C		150						uAmps
Maximum Reverse Recovery Time (Note 2)	t _{rr}	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

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 Impedance = 50 ohms.

FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

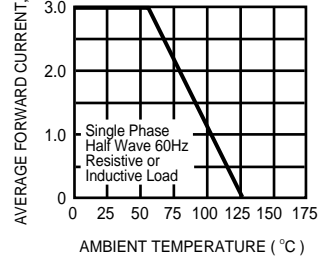


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

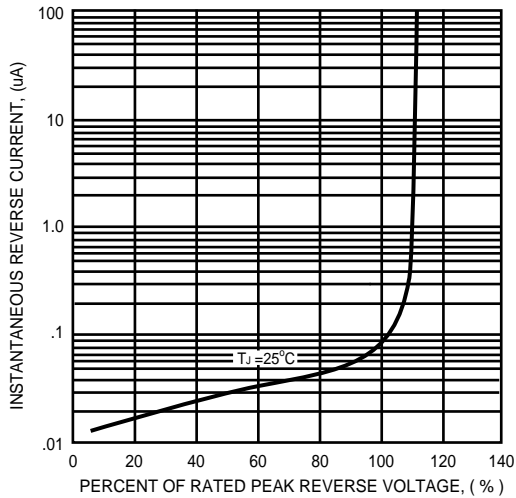


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

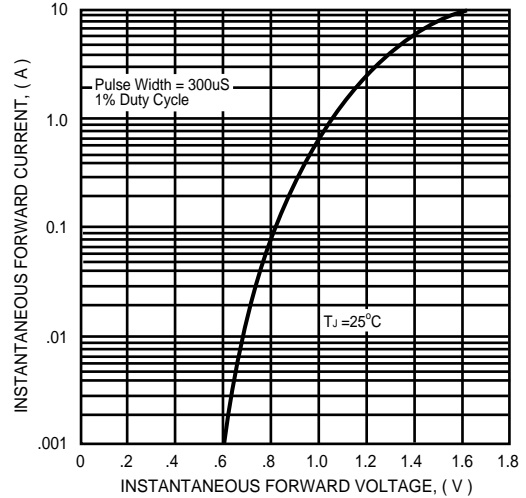


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

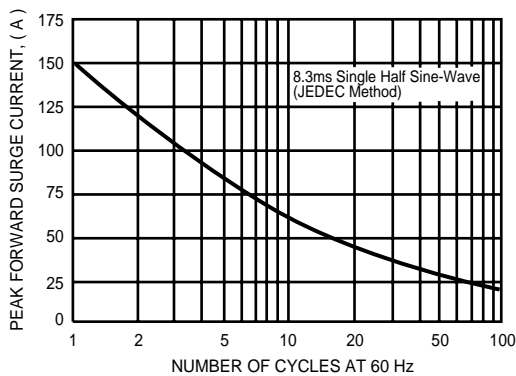


FIG. 6 - TYPICAL JUNCTION CAPACITANCE

