



CHENMKO ENTERPRISE CO.,LTD

Lead free devices

GLASS PASSIVATED SUPER FAST RECTIFIER

VOLTAGE RANGE 50 - 600 Volts CURRENT 5.0 Amperes

**SF51PT
THRU
SF56PT**

FEATURES

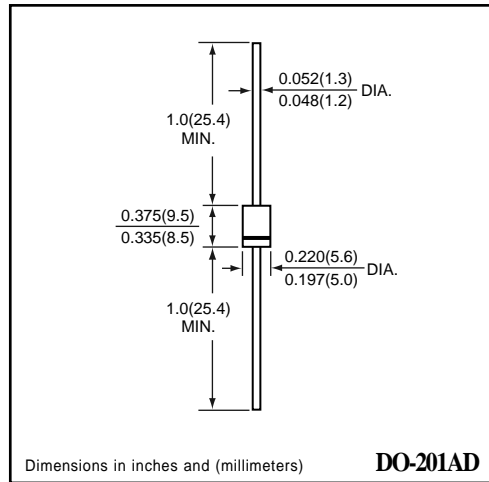
- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- * High reliability
- * Low leakage
- * Low forward voltage
- * High current capability
- * Super fast switching speed
- * High surge capability
- * Good for switching mode circuit

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: 1.18 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	SF51PT	SF52PT	SF53PT	SF54PT	SF55PT	SF56PT	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	300	400	600	Volts
Maximum RMS Voltage	V _{RMS}	35	70	140	210	280	420	Volts
Maximum DC Blocking Voltage	V _{DC}	50	100	200	300	400	600	Volts
Maximum Average Forward Current at TA = 55°C	I _o	5.0						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	50					30	pF
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +150						°C

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

CHARACTERISTICS	SYMBOL	SF51PT	SF52PT	SF53PT	SF54PT	SF55PT	SF56PT	UNITS
Maximum Instantaneous Forward Voltage at 5.0 A DC	V _F	0.95				1.27	1.75	Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	I _R	5.0						uAmps
		150						uAmps
Maximum Reverse Recovery Time (Note 2)	t _{rr}	35						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

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RATING CHARACTERISTIC CURVES (SF51PT THRU SF56PT)

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

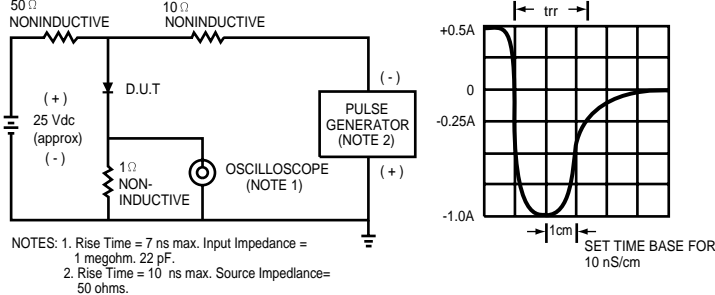


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

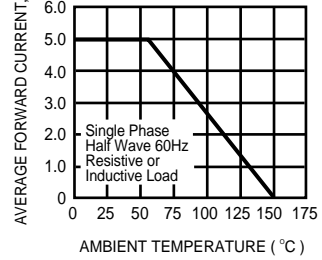


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

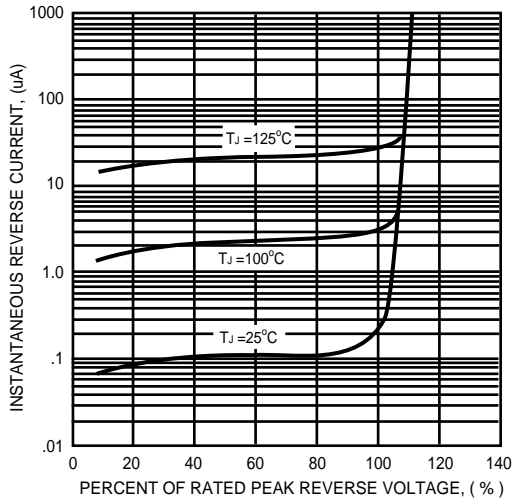


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

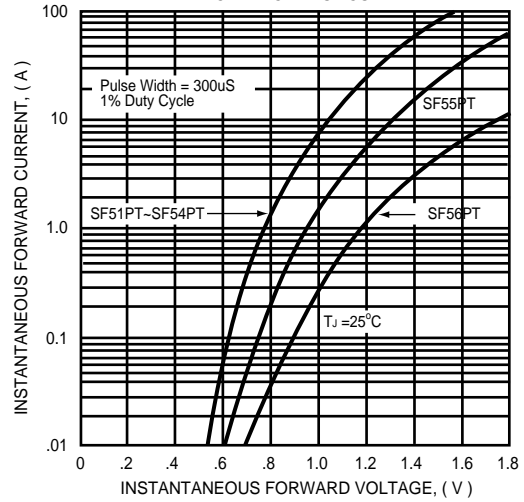


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

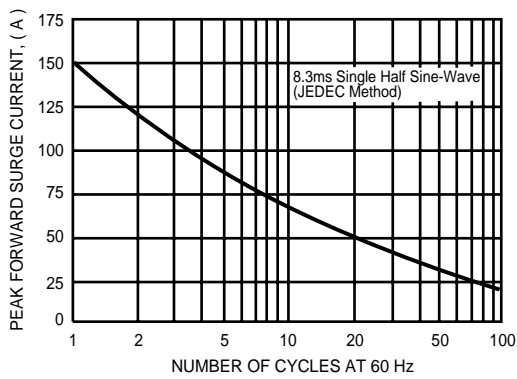


FIG. 6 - TYPICAL JUNCTION CAPACITANCE

