SMD Ultra Fast Recovery Rectifier

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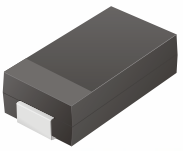
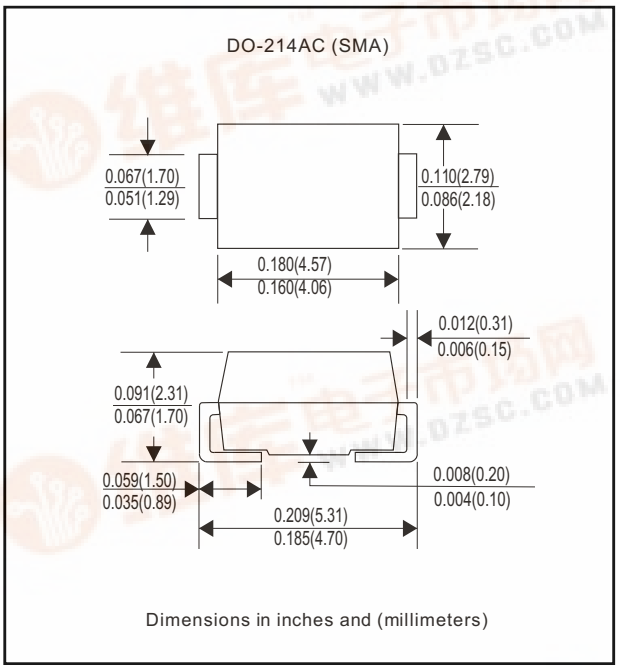
CURA151 Thru CURA157

Reverse Voltage: 50 - 1000 Volts
Forward Current: 1.5 Amp



Features

- Ideal for surface mount applications
- Easy pick and place
- Plastic package has Underwriters Lab. flammability classification 94V-0
- Fast recovery time: 50 - 75 nS
- Low leakage current



Mechanical data

- Case: JEDEC DO-214AC molded plastic
- Terminals: solderable per MIL-STD-750, method 2026
- Polarity: Color band denotes cathode end
- Mounting position: Any
- Approx. Weight: 0.063 gram

Maximum Ratings and Electrical Characterics

Parameter	Symbol	CURA 151	CURA 152	CURA 153	CURA 154	CURA 155	CURA 156	CURA 157	Unit
Max. Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Max. DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Max. RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Peak Surge Forward Current 8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}	50							A
Max. Average Forward Current	I_o	1.5							A
Max. Instantaneous Forward Current at 1.5 A	V_F	1.0				1.3	1.7		V
Reverse recovery time	Trr	50					75		nS
Max. DC Reverse Current at Rated DC Blocking Voltage Ta=25°C Ta=100°C	I_R	5.0 100							uA
Max. Thermal Resistance (Note 1)	$R\theta_{JL}$	20							°C/W
Operating Junction Temperature	Tj	-55 to +150							°C
Storage Temperature	T_{STG}	-55 to +150							°C

Note 1: Thermal resistance from junction to lead, 8.0x8.0mm square (0.13 mm thick) land areas.

Rating and Characteristic Curves (CURA151 Thru CURA157)

Fig. 1 - Reverse Characteristics

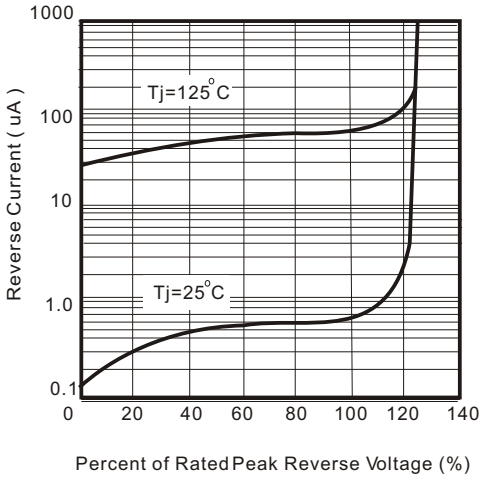


Fig.2 - Forward Characteristics

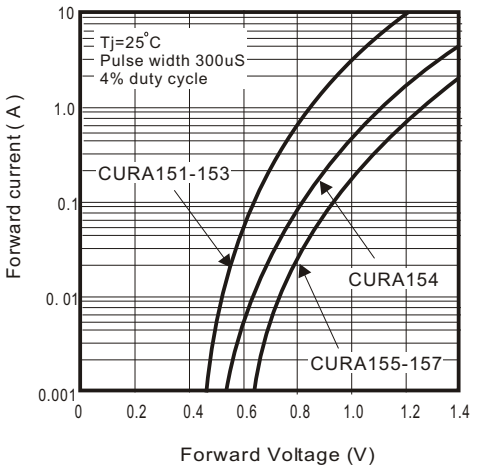


Fig. 3 - Junction Capacitance

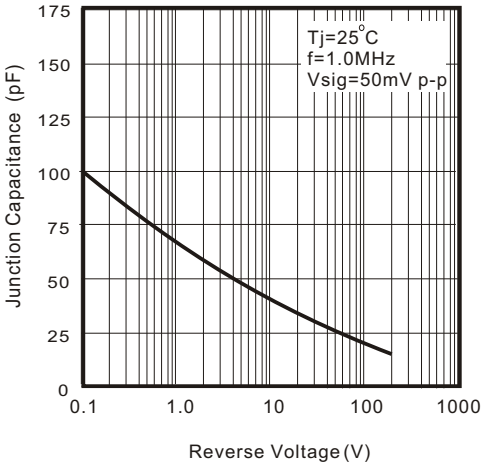


Fig. 4 - Non Repetitive Forward Surge Current

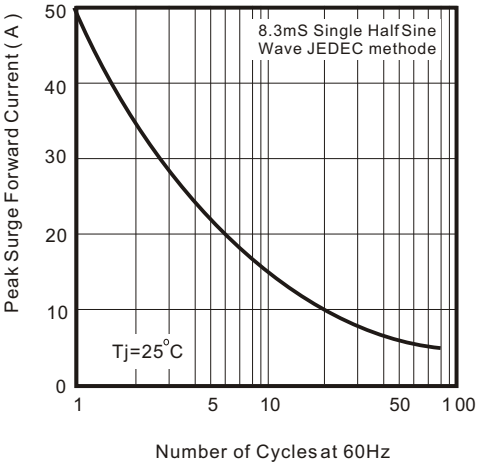
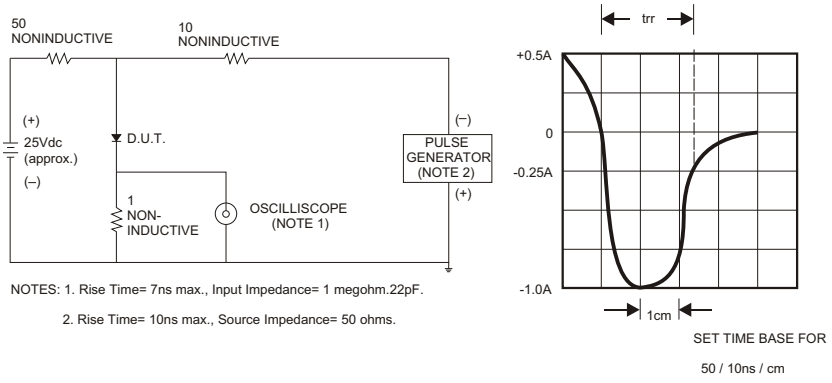


Fig. 5 - Test Circuit Diagram and Reverse Recovery Time Characteristics



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.

2. Rise Time= 10ns max., Source Impedance= 50 ohms.

Fig. 6 - Current Derating Curve