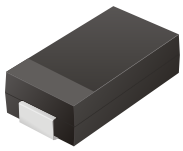
SMD Ultra Fast Recovery Rectifiers

COMCHIP
SMD Diodes Specialist

CURC301-G Thru. CURC307-G

Reverse Voltage: 50 to 1000 Volts
Forward Current: 3.0 Amp
RoHS Device



Features

-Ideal for surface mount applications.

-Easy pick and place.

-Plastic package has Underwriters Lab. flammability classification 94V-0.

-Fast recovery time: 50~75nS.

-Low leakage current.

Mechanical data

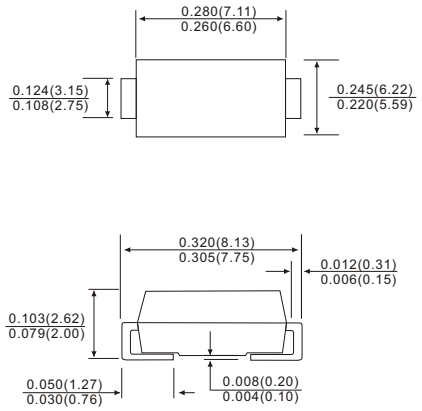
-Case: JEDEC DO-214AB, molded plastic.

-Terminals: solderable per MIL-STD-750, method 2026.

-Polarity: Color band denotes cathode end.

-Approx. weight: 0.21 grams

DO-214AB (SMC)



Dimensions in inches and (millimeter)

Maximum Ratings and Electrical Characteristics

Parameter	Symbol	CURC 301-G	CURC 302-G	CURC 303-G	CURC 304-G	CURC 305-G	CURC 306-G	CURC 307-G	Units
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}	100							A
Max. average forward current	I_O	3.0							A
Max. instantaneous forward voltage at 3.0A	V_F	1.0			1.3	1.7			V
Reverse recovery time	T_{rr}	50				75			nS
Max. DC reverse current at T_A=25°C rated DC blocking voltage T_A=125°C	I_R	5.0 150							μA
Max. thermal resistance (Note 1)	$R_{\theta JL}$	20							°C/W
Max. operating junction temperature	T_J	150							°C
Storage temperature	T_{STG}	-55 to +150							°C

Notes: 1. Thermal resistance from junction to lead mounted on P.C.B. with 8.0×8.0 mm^2 square land area.

RATING AND CHARACTERISTIC CURVES (CURC301-G thru CURC307-G)

Fig.1 Reverse Characteristics

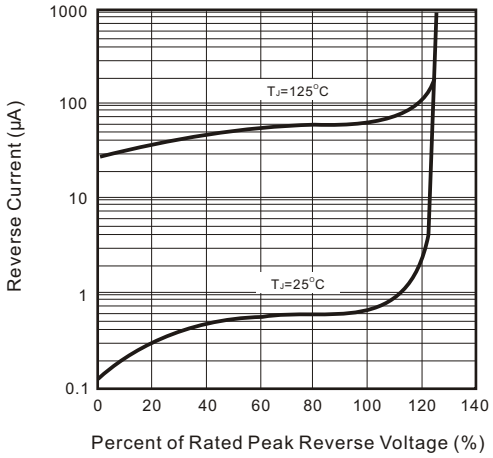


Fig.2 Forward Characteristics

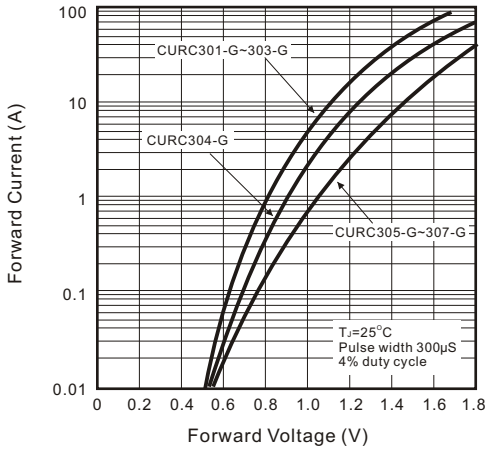


Fig.3 Junction Capacitance

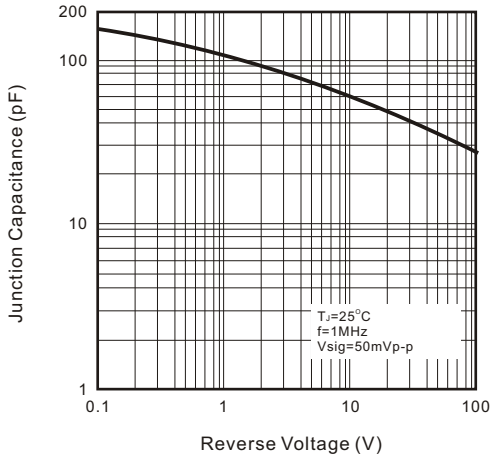


Fig.4 Non-repetitive Forward Surge Current

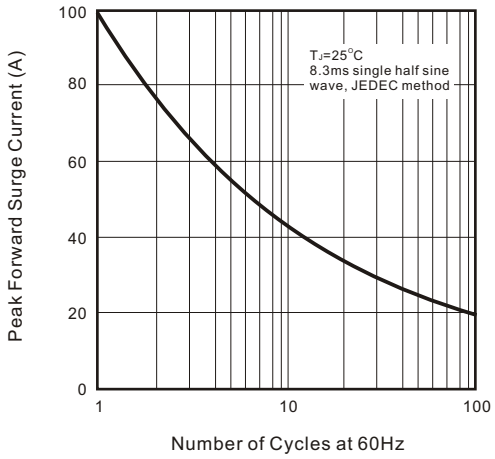
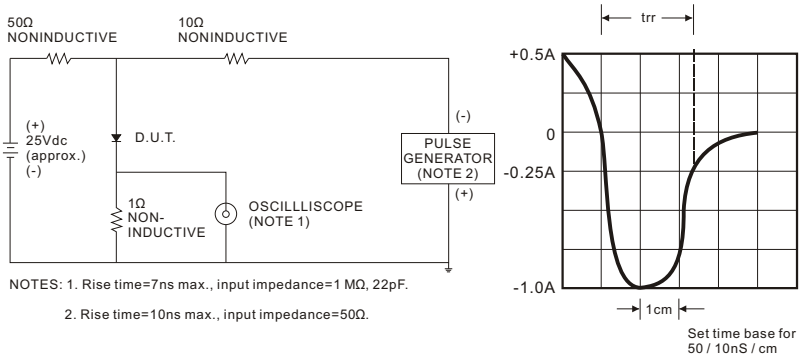


Fig.5 Test Circuit Diagram and Reverse Recovery Time Characteristics



NOTES: 1. Rise time=7ns max., input impedance=1 MΩ, 22pF.

2. Rise time=10ns max., input impedance=50Ω.

Fig.6 Current Derating Curve

