



1N5807US/1N5809US/1N5811US

Superfast Recovery Diodes

Surface Mount (US)

POWER DISCRETES

Description

Quick reference data

V_R 50 -150 V
 I_F 1N5807US to 1N5811US = 6A
 t_{rr} 1N5807US to 1N5811US = 30nS
 I_R 1N5807US to 1N5811US = 5µA

Features

- ◆ Very low reverse recovery time
- ◆ Hermetically sealed non-cavity construction
- ◆ Soft, non-snap, off recovery characteristics
- ◆ Very low forward voltage drop

These products are qualified to MIL-PRF-19500/477 and are preferred parts as listed in MIL-HDBK-5961. They can be supplied fully released as JANTX, JANTXV and JANS versions.

Electrical Specifications

Electrical specifications @ T_A = 25°C unless otherwise specified.

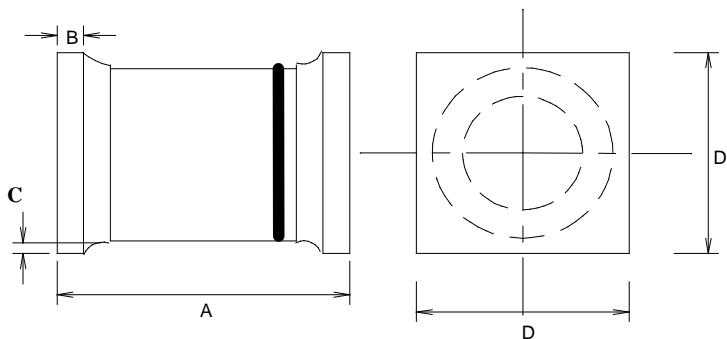
	Symbol	1N5807US	1N5809US	1N5811US	Units
Working Reverse Voltage	V_{RWM}	50	100	150	V
Repetitive Reverse Voltage	V_{RRM}	50	100	150	V
Average Forward Current (@ 75°C lead length = 0.375')	$I_{F(AV)}$		6.0		A
Repetitive Surge Current (@ 55°C in free air lead length = 0.375')	I_{FRM}		25		A
Non-Repetitive Surge Current (tp = 8.3mS @ V_R & T_{JMAX})	I_{FSM}		125		A
Storage Temperature Range	T_{STG}		-65 to +175		°C
Average Forward Current Max (pcb mounted: T_A = 55°C)					
Sine wave	$I_{F(AV)}$		1.7		A
Square wave (d = 0.5)	$I_{F(AV)}$		1.8		
I^2t for fusing (t = 8.3mS) max	I^2t		32		A ² S
Forward Voltage Drop max @ T_J = 25°C	V_F		0.875 @ 4A		V
Reverse Current max @ V_{RWM} , T_J = 25°C @ V_{RWM} , T_J = 100°C	I_R		5.0 150		µA
Reverse Recovery Time max (1.0A I_F to 1.0A I_{RM} recover to 0.25A $I_{RM(REC)}$)	t_{rr}		30		nS
Junction Capacitance typ @ V_R = 5V f = 1MHz	C_J		60		pF
Thermal Resistance to end cap	$R_{\theta JEC}$		6.5		°C/W

POWER DISCRETES
Ordering Information

Part Number	Description
1N5807US, 1N5809US, 1N5811US	Surface Mount ⁽¹⁾

Note:

(1) Available in trays and tape and reel packaging. Please consult factory for quantities.

Outline Drawing


*Cathode is denoted by a black band on a white body.

	Dimensions in Inches	
	1N5807US - 1N5811US	
	MIN	MAX
A	0.2	0.225
B	0.019	0.028
C	0.003	-
D	0.137	0.148

Contact Information

Semtech Corporation
 Power Discretes Products Division
 200 Flynn Road, Camarillo, CA 93012
 Phone: (805)498-2111 FAX (805)498-3804