



1N5807US/1N5809US/1N5811US  
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THE ONLINE DISTRIBUTOR OF ELECTRONIC COMPONENTS  
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 @  $T_A = 25^\circ\text{C}$  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')	$I_{FSM}$		25		A
Non-Repetitive Surge Current (tp = 8.3mS @ $V_R$ & $T_{JMAX}$ )	$I_{F(SM)}$		125		A
Storage Temperature Range	$T_{STG}$		-65 to +175		°C
Average Forward Current Max (pcb mounted: $T_A = 55^\circ\text{C}$ ) Sine wave Square wave (d = 0.5)	$I_{F(AV)}$		1.7 1.8		A
$I^2t$ for fusing (t = 8.3mS) max	$I^2t$		32		A <sup>2</sup> S
Forward Voltage Drop max @ $T_J = 25^\circ\text{C}$	$V_F$		0.875 @ 4A		V
Reverse Current max @ $V_{RWM}$ , $T_J = 25^\circ\text{C}$ @ $V_{RWM}$ , $T_J = 100^\circ\text{C}$	$I_R$		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 @ $V_R = 5\text{V}$ f = 1MHz	$C_J$		60		pF
Thermal Resistance to end cap	$R_{\theta JEC}$		6.5		°C/W

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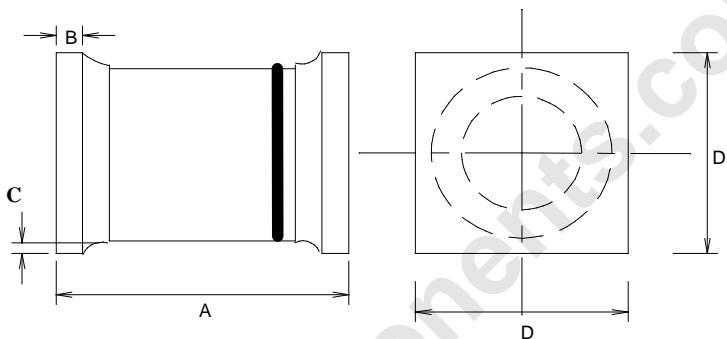
## Ordering Information

Part Number	Description
1N5807US, 1N5809US, 1N5811US	Surface Mount <sup>(1)</sup>

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

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