2N5114 | 2N5115 | 2N5116

P-CHANNEL JFETS - 1

KEY FEATURES

- JAN/JANTX/JANTXV STANDARD PRODUCTS
- QUALIFIED PER MIL-PRF-19500/476F
- LOW ON RESISTANCE
- SWITCHES DIRECTLY FROM TTL LOGIC OR CMOS
- HIGH OFF ISOLATION
- S LEVEL EQUIVALENT SCREENING OPTIONS
- LIGHT WEIGHT
- SECOND SOURCE FOR MICROSEMI

Ideal for inverting switching or “Virtual Gnd” switching into inverting input of Op. Amp.
No driver is required and ±10VAC signals can be handled using only +5V logic (TTL or CMOS).

Part Number	Package	19500/	Breakdown Voltage	Current	R_{DSON}
2N5114	TO-18	476	30V	-90mA	75 Ω
2N5115	TO-18	476	30V	-60mA	100 Ω
2N5116	TO-18	476	30V	-25mA	175Ω

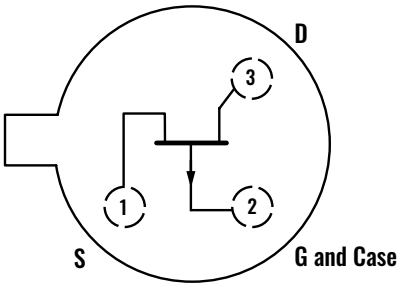
ABSOLUTE MAXIMUM RATINGS

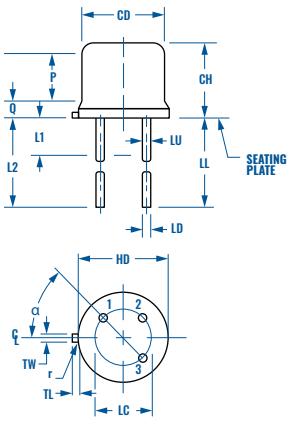
Gate-Source Voltage	30V	Storage Temperature	-65 to 200°C
Gate Current	50mA	Operating Junction Temperature	-65 to 200°C
Lead Temperature (1/16 from case, 10 sec)	300°C	Power Dissipation Derating	500mW 3mW/°C @ T_a = 25°C

ORDERING GUIDE

JAN2N5114	JANTX2N5114	JANTXV2N5114
JAN2N5115	JANTX2N5115	JANTXV2N5115
JAN2N5116	JANTX2N5116	JANTXV2N5116

PACKAGE OUTLINE & PIN CONNECTIONS





Ltr	Dimensions			
	Inches		mm	
	Min.	Max.	Min.	Max.
CD	0.178	0.195	4.52	4.95
CH	0.170	0.210	4.32	5.33
HD	0.209	0.230	5.31	5.84
LC	0.100 TP		2.54 TP	
LD	0.016	0.021	0.41	0.53
LL	0.500	0.750	2.70	19.05
LU	0.016	0.019	0.41	0.48
L1		0.050		1.27
L2	0.250		6.35	
P	0.100		2.54	
Q		0.030		0.76
TL	0.028	0.048	0.71	1.22
TW	0.036	0.046	0.91	1.17
r		0.010		0.25
α	45° TP			

ELECTRICAL SPECIFICATIONS

Typical @ 25°C unless otherwise noted

Parameter		Symbol	Min.	Max.	Unit
Gate-Source Breakdown Voltage V_{DS} =0Vdc, I_G = 1.0µAdc		$V_{(BR)GSS}$	30		Vdc
Gate-Source "Off" State Voltage V_{DS} = -15Vdc, ID = -1.0nAdc	2N5114 2N5115 2N5116	$V_{GS(off)}$	5.0 3.0 1.0	10.0 6.0 4.0	Vdc Vdc Vdc
Gate Reverse Current V_{DS} = 0Vdc, V_{GS} = 20Vdc		I_{GSS}		500	pA
Drain Cutoff Current V_{DS} = -15Vdc, V_{GS} = 12Vdc V_{DS} = -15Vdc, V_{GS} = 7Vdc V_{DS} = -15Vdc, V_{GS} = 5Vdc	2N5114 2N5115 2N5116	$I_{D(off)}$		-500 -500 -500	pA pA pA
Small Signal Drain to Source "On" Resistance V_{GS} = 0Vdc, I_D = -1mAdc V_{GS} = 0Vdc, I_D = 0Adc, f = 1kHz	2N5114 2N5115 2N5116	$R_{DS(on)}$		75 100 175	Ω Ω Ω
Drain Source "On" State Voltage V_{GS} = 0Vdc, I_D = -15mAdc V_{GS} = 0Vdc, I_D = -7mAdc V_{GS} = 0Vdc, I_D = -3mAdc	2N5114 2N5115 2N5116	$V_{DS(on)}$		-1.3 -0.8 -0.6	Vdc Vdc Vdc
Small Signal, Common Source Reverse Transfer Capacitance V_{GS} = 12Vdc, V_{DS} = 0Vdc V_{GS} = 7Vdc, V_{DS} = 0Vdc V_{GS} = 5Vdc, V_{DS} = 0Vdc	2N5114 2N5115 2N5116	C_{rss}		7	pF
Small Signal, Common Source Short-Circuit Input Capacitance V_{GS} = 0Vdc V_{DS} = -15Vdc, f = 1.0MHz	2N5114 2N5115 2N5116	C_{iss}		25 25 27	pF
Turn On Delay Time	2N5114 2N5115 2N5116	$t_{D(on)}$		6 10 25	nS nS nS
Rise Time	2N5114 2N5115 2N5116	t_r		10 20 35	nS nS nS
Turn Off Delay Time	2N5114 2N5115 2N5116	$t_{d(off)}$		6 8 20	nS nS nS