2N4859 | 2N4860 | 2N4861

N-CHANNEL JFETS - 1

KEY FEATURES

- JAN/JANTX/JANTXV STANDARD PRODUCTS
- QUALIFIED PER MIL-PRF-19500/385
- LOW ON RESISTANCE
- FAST SWITCHING
- HIGH OFF ISOLATION
- S LEVEL EQUIVALENT SCREENING OPTIONS
- RADIATION TOLERANT
- SECOND SOURCE FOR VISHAY & SILICONIX

Part Number	Package	19500/	Breakdown Voltage	Current	$RD_{S(on)}$
2N4859	TO-18	385	30V	175mA	25 Ω
2N4860	TO-18	385	30V	100mA	40 Ω
2N4861	TO-18	385	30V	80mA	60 Ω

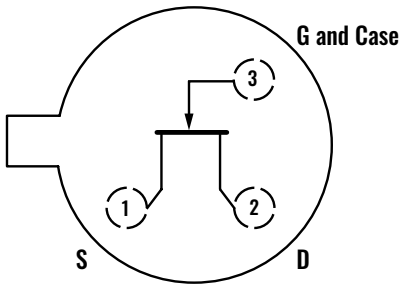
ABSOLUTE MAXIMUM RATINGS

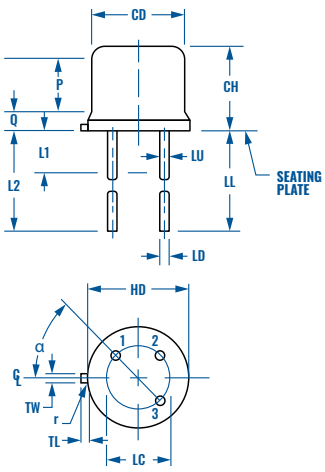
Gate-Source Voltage	-30V	Storage Temperature	-65 to 200°C
Gate Current	50mA	Operating Junction Temperature	-65 to 200°C
Lead Temperature (1/16 from case, 10 sec)	300°C	Power Dissipation Derating	1800mW 10.3mW/°C to TC ≥ 25°C

ORDERING GUIDE

JAN2N4859	JANTX2N4859	JANTXV2N4859
JAN2N4860	JANTX2N4860	JANTXV2N4860
JAN2N4861	JANTX2N4861	JANTXV2N4861

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, IG = 1.0Adc		$V_{(BR)GSS}$	-30		Vdc
Gate-Source "Off" State Voltage V_{DS} = 15Vdc, ID = 0.5nAdc	2N4859 2N4860 2N4861	$V_{GS(on)}$	-4 -2 -0.8	-10 -6 -4	Vdc Vdc Vdc
Gate Reverse Current V_{DS} = 0Vdc, V_{GS} = -20Vdc V_{DS} = 0Vdc, V_{GS} = -15Vdc		I_{GSS}		-0.25 -0.25	nA nA
Drain Current V_{DS} = 15Vdc, V_{GS} = -10Vdc V_{DS} = 15Vdc, V_{GS} = 0Vdc	 2N4859 2N4860 2N4861	$I_{D(off)}$	 50 20 8	0.25 175 100 80	nA mA mA mA
Static Drain - Source "On" State Resistance V_{GS} = 0Vdc, I_D = 1mAdc	2N4859 2N4860 2N4861	$R_{DS(on)}$		25 40 60	Ω Ω Ω
Drain Source "On" State Voltage V_{GS} = 0Vdc, I_D = 20mAdc V_{GS} = 0Vdc, I_D = 10mAdc V_{GS} = 0Vdc, I_D = 5mAdc	2N4859 2N4860 2N4861	$V_{DS(on)}$		0.75 0.5 0.5	Vdc Vdc Vdc
Small Signal, Common Source Reverse Transfer Capacitance V_{GS} = -10Vdc V_{DS}, V_D = 0Vdc, f = 1.0MHz C_1 = 0.1µF, L1 =L2 ≥ 500µH		C_{rss}		8	pF
Small Signal, Common Source Short-Circuit Input Capacitance V_{GS} = -10Vdc V_{DS}, V_D = 0, f = 1.0MHz C_1 = 0.1µF, C2 = 20.1m F_{L1} = L_2 ≥ 500µH		C_{iss}		8	pF
Turn On Delay Time	2N4859 2N4860 2N4861	$t_{D(on)}$		6 6 10	nS nS nS
Rise Time	2N4859 2N4860 2N4861	t_r		3 4 10	nS nS nS
Turn Off Delay Time	2N4859 2N4860 2N4861	$t_{d(off)}$		25 50 100	nS nS nS