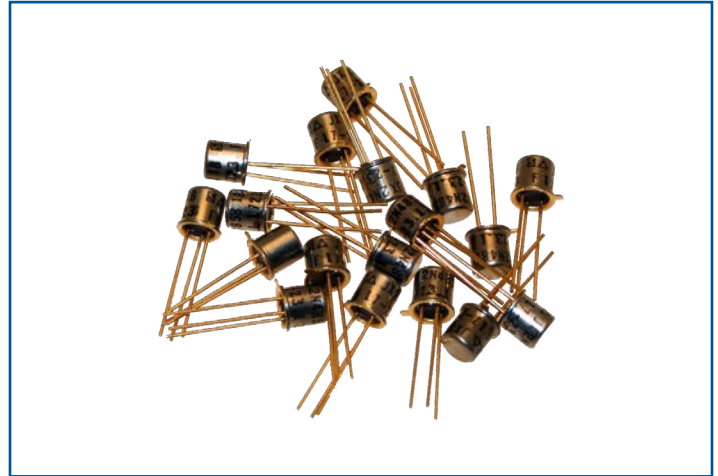


**KEY FEATURES**

- 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 <sub>S(on)</sub>
2N4859	T0-18	385	30V	175mA	25 Ω
2N4860	T0-18	385	30V	100mA	40 Ω
2N4861	T0-18	385	30V	80mA	60 Ω

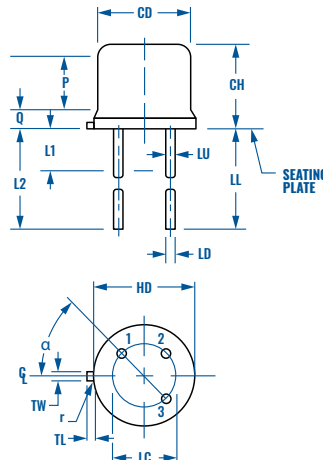
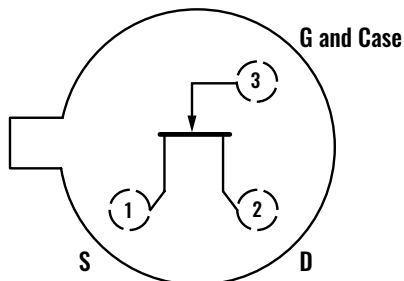
**ABSOLUTE MAXIMUM RATINGS**

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 $V_{DS} = 0Vdc, I_G = 1.0Adc$	$V_{(BR)GSS}$	-30		Vdc
Gate-Source "Off" State Voltage $V_{DS} = 15Vdc, I_D = 0.5nAdc$	$V_{GS(off)}$	-4	-10	Vdc
2N4859		-2	-6	Vdc
2N4860 2N4861		-0.8	-4	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 $V_{DS} = 15Vdc, V_{GS} = -10Vdc$ $V_{DS} = 15Vdc, V_{GS} = 0Vdc$	$I_{D(off)}$	50	0.25	nA
2N4859		20	175	mA
2N4860 2N4861		8	100 80	mA mA
Static Drain - Source "On" State Resistance $V_{GS} = 0Vdc, I_D = 1mAdc$	$R_{DS(on)}$		25	$\Omega$
2N4859			40	$\Omega$
2N4860 2N4861			60	$\Omega$
Drain Source "On" State Voltage $V_{GS} = 0Vdc, I_D = 20mAdc$ $V_{GS} = 0Vdc, I_D = 10mAdc$ $V_{GS} = 0Vdc, I_D = 5mAdc$	$V_{DS(on)}$		0.75	Vdc
2N4859			0.5	Vdc
2N4860 2N4861			0.5	Vdc
Small Signal, Common Source Reverse Transfer Capacitance $V_{GS} = -10Vdc, V_{DS}, V_D = 0Vdc, f = 1.0MHz$ $C_1 = 0.1\mu F, L_1 = L_2 \geq 500\mu H$	$C_{rss}$		8	pF
Small Signal, Common Source Short-Circuit Input Capacitance $V_{GS} = -10Vdc, V_{DS}, V_D = 0, f = 1.0MHz$ $C_1 = 0.1\mu F, C_2 = 20.1m$ $F_{L1} = L_2 \geq 500\mu H$	$C_{iss}$		8	pF
Turn On Delay Time	$t_{D(on)}$	2N4859	6	nS
		2N4860	6	nS
		2N4861	10	nS
Rise Time	$t_r$	2N4859	3	nS
		2N4860	4	nS
		2N4861	10	nS
Turn Off Delay Time	$t_{d(off)}$	2N4859	25	nS
		2N4860	50	nS
		2N4861	100	nS