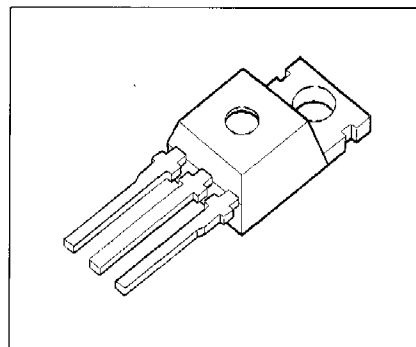


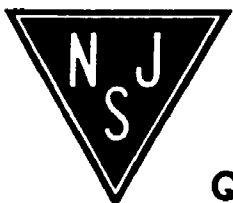
Type	V _{DS}	I _D	R _{DS(on)}	Package
BUZ 80A	800 V	3 A	3 Ω	TO-220 AB

Maximum Ratings

Parameter	Symbol	Values	Unit
Drain source voltage	V _{DS}	800	V
Drain-gate voltage R _{GS} = 20 kΩ	V _{DGR}	800	
Continuous drain current T _C = 50 °C	I _D	3	A
Pulsed drain current T _C = 25 °C	I _{Dpuls}	12	
Gate source voltage	V _{GS}	± 20	V
Power dissipation T _C = 25 °C	P _{tot}	75	W
Operating temperature	T _j	-55+ 150	°C
Storage temperature	T _{stg}	-55+ 150	
Thermal resistance, chip case	R _{thJC}	≤ 1.67	K/W
Thermal resistance, chip to ambient	R _{thJA}	75	
DIN humidity category, DIN 40 040		E	
IEC climatic category, DIN IEC 68-1		55 / 150 / 56	



Pin 1	Pin 2	Pin 3
G	D	S



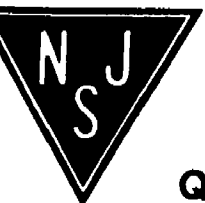
BUZ 80A

Electrical Characteristics, at $T_j = 25^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Values			Unit
		min.	typ.	max.	

Static Characteristics

Drain- source breakdown voltage $V_{GS} = 0\text{ V}, I_D = 0.25\text{ mA}, T_j = 25^\circ\text{C}$	$V_{(BR)DSS}$	800	-	-	V
Gate threshold voltage $V_{GS} = V_{DS}, I_D = 1\text{ mA}$	$V_{GS(th)}$	2.1	3	4	
Zero gate voltage drain current $V_{DS} = 800\text{ V}, V_{GS} = 0\text{ V}, T_j = 25^\circ\text{C}$ $V_{DS} = 800\text{ V}, V_{GS} = 0\text{ V}, T_j = 125^\circ\text{C}$	I_{DSS}	-	20 100	250 1000	μA
Gate-source leakage current $V_{GS} = 20\text{ V}, V_{DS} = 0\text{ V}$	I_{GSS}	-	10	100	nA
Drain-Source on-resistance $V_{GS} = 10\text{ V}, I_D = 1.5\text{ A}$	$R_{DS(on)}$	-	2.7	3	Ω



BUZ 80A

Electrical Characteristics, at $T_j = 25^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Values			Unit
		min.	typ.	max.	

Dynamic Characteristics

Transconductance $V_{DS} \geq 2 \cdot I_D \cdot R_{DS(on)max}$, $I_D = 1.5 \text{ A}$	g_{fs}	1	1.8	-	S
Input capacitance $V_{GS} = 0 \text{ V}$, $V_{DS} = 25 \text{ V}$, $f = 1 \text{ MHz}$	C_{iss}	-	1600	2100	pF
Output capacitance $V_{GS} = 0 \text{ V}$, $V_{DS} = 25 \text{ V}$, $f = 1 \text{ MHz}$	C_{oss}	-	90	150	
Reverse transfer capacitance $V_{GS} = 0 \text{ V}$, $V_{DS} = 25 \text{ V}$, $f = 1 \text{ MHz}$	C_{rss}	-	30	55	
Turn-on delay time $V_{DD} = 30 \text{ V}$, $V_{GS} = 10 \text{ V}$, $I_D = 3 \text{ A}$ $R_{GS} = 50 \Omega$	$t_{d(on)}$	-	30	45	ns
Rise time $V_{DD} = 30 \text{ V}$, $V_{GS} = 10 \text{ V}$, $I_D = 3 \text{ A}$ $R_{GS} = 50 \Omega$	t_r	-	40	60	
Turn-off delay time $V_{DD} = 30 \text{ V}$, $V_{GS} = 10 \text{ V}$, $I_D = 3 \text{ A}$ $R_{GS} = 50 \Omega$	$t_{d(off)}$	-	110	140	
Fall time $V_{DD} = 30 \text{ V}$, $V_{GS} = 10 \text{ V}$, $I_D = 3 \text{ A}$ $R_{GS} = 50 \Omega$	t_f	-	60	80	

