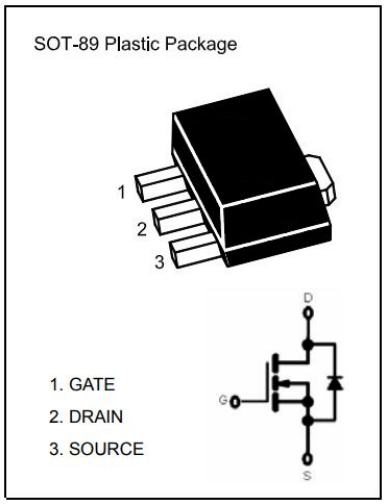
N-Channel MOSFET

■ Features

- $V_{DS\ (V)}$ = 30V
- I_D = 2 A
- $R_{DS(ON)}$ < 800mΩ (V_{GS} = 4V)
- $R_{DS(ON)}$ < 400mΩ (V_{GS} = 10V)
- Complments the 2SJ197
- Marking: NB



■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	30	V
Gate-Source Voltage	V_{GS}	±20	
Continuous Drain Current	I_D	2	A
Pulsed Drain Current (Note.1)	I_{DM}	4	
Power Dissipation Ta = 25℃	P_D	2	W
Junction Temperature	T_J	150	℃
Storage Temperature Range	T_{stg}	-55 to 150	

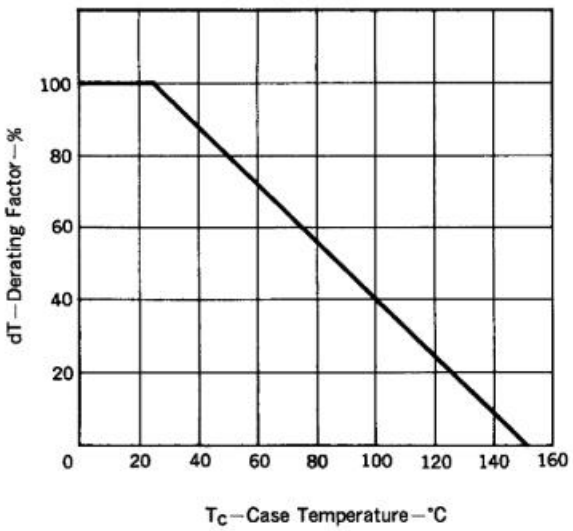
Note.1: PW ≤ 10ms,Duty Cycle ≤ 50%

■ Electrical Characteristics Ta = 25℃

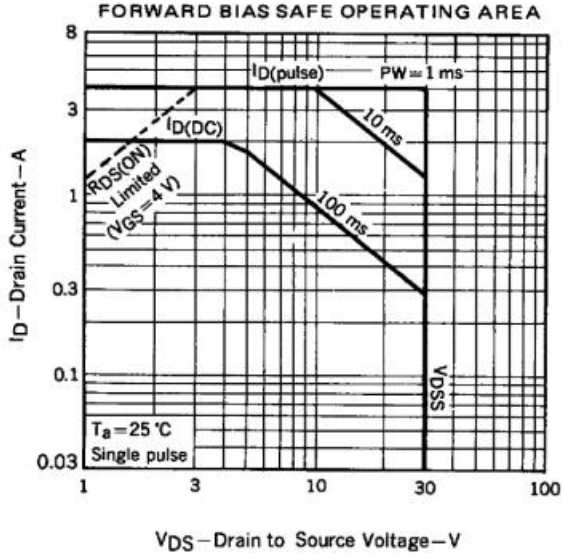
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V_{DSS}	I_D=250μA, V_{GS}=0V	30			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=30V, V_{GS}=0V			10	uA
Gate-Body Leakage Current	I_{GSS}	V_{DS}=0V, V_{GS}=±20V			±10	uA
Gate Cut-off Voltage	$V_{GS(off)}$	V_{DS}=10 V I_D=1mA	1.3		2.5	V
Static Drain-Source On-Resistance	$R_{DS(ON)}$	V_{GS}=4V, I_D=0.5 A			0.8	Ω
		V_{GS}=10V, I_D=0.5 A			0.4	
Forward Transconductance	g_{FS}	V_{DS}=10V, I_D=0.5 A	0.4			S
Input Capacitance	C_{iss}	V_{GS}=0V, V_{DS}=10V, f=1MHz		230		pF
Output Capacitance	C_{oss}			170		
Reverse Transfer Capacitance	C_{rss}			45		
Turn-On DelayTime	$t_{d(on)}$	$V_{GS(on)}$=10V, V_{DS}=25V, I_D=0.5A, R_L=50Ω, R_G=10Ω		15		ns
Turn-On Rise Time	t_r			50		
Turn-Off DelayTime	$t_{d(off)}$			420		
Turn-Off Fall Time	t_f			240		

■ Typical Characterisitics

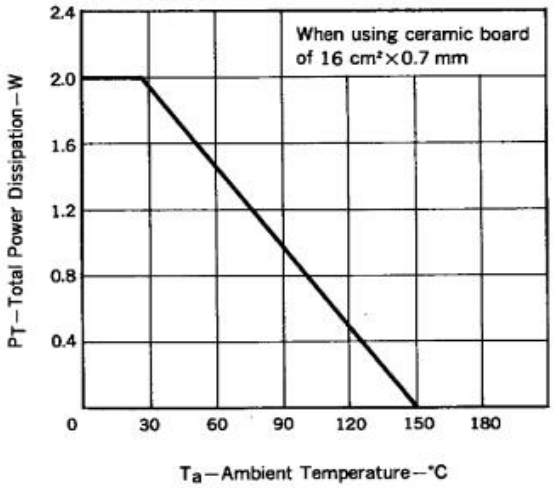
DERATING FACTOR OF FORWARD BIAS SAFE OPERATING AREA



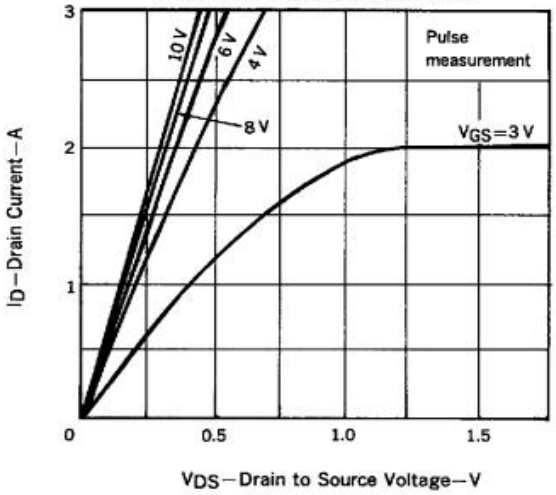
FORWARD BIAS SAFE OPERATING AREA



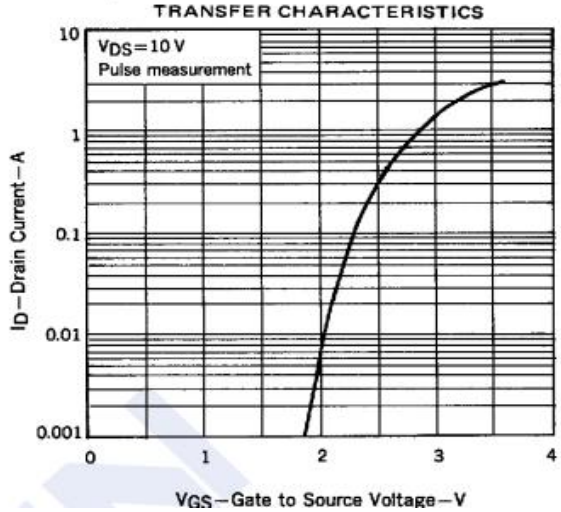
TOTAL POWER DISSIPATION vs. AMBIENT TEMPERATURE



DRAIN CURRENT vs. DRAIN TO SOURCE VOLTAGE



TRANSFER CHARACTERISTICS



FORWARD TRANSFER ADMITTANCE vs. DRAIN CURRENT