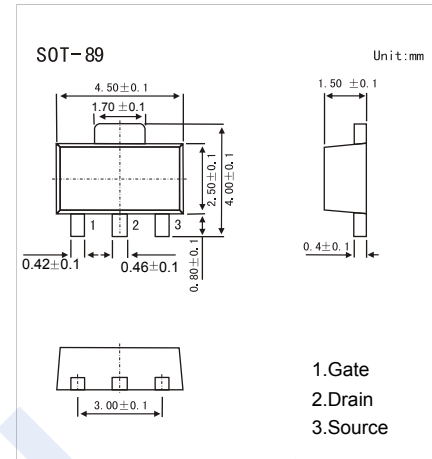
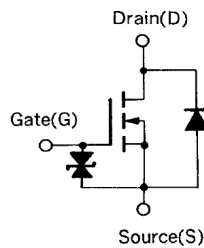


N-Channel MOSFET

2SK1587

■ Features

- $V_{DS} (V) = 16V$
- $I_D = 2 A$
- $R_{DS(ON)} < 0.5 \Omega$ ($V_{GS} = 4V$)
- $R_{DS(ON)} < 0.8 \Omega$ ($V_{GS} = 2.5V$)



■ Absolute Maximum Ratings $T_a = 25^\circ C$

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	16	V
Gate-Source Voltage	V_{GS}	± 16	
Continuous Drain Current	I_D	2	A
Pulsed Drain Current (Note.1)	I_{DM}	4	
Power Dissipation	P_D	2	W
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55 to 150	

Note.1: $PW \leq 10ms$, Duty Cycle $\leq 50\%$

■ Electrical Characteristics $T_a = 25^\circ C$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V_{DSS}	$I_D=250 \mu A$, $V_{GS}=0V$	16			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=16V$, $V_{GS}=0V$			1	μA
Gate-Body Leakage Current	I_{GSS}	$V_{DS}=0V$, $V_{GS}=\pm 16V$			± 5	μA
Gate Cutt-off Voltage	$V_{GS(off)}$	$V_{DS}=10V$, $I_D=1mA$	0.8		1.6	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=4V$, $I_D=1A$			0.5	Ω
		$V_{GS}=2.5V$, $I_D=0.5A$			0.8	
Forward Transconductance	g_{FS}	$V_{DS}=5V$, $I_D=1A$	0.4			S
Input Capacitance	C_{iss}	$V_{GS}=0V$, $V_{DS}=5V$, $f=1MHz$		180		pF
Output Capacitance	C_{oss}			160		
Reverse Transfer Capacitance	C_{rss}			55		
Turn-On DelayTime	$t_{d(on)}$		$V_{GS(on)}=3V$, $V_{DS}=10V$, $I_D=1A$, $R_L=10 \Omega$, $R_G=10 \Omega$		100	
Turn-On Rise Time	t_r			700		
Turn-Off DelayTime	$t_{d(off)}$			150		
Turn-Off Fall Time	t_f			200		

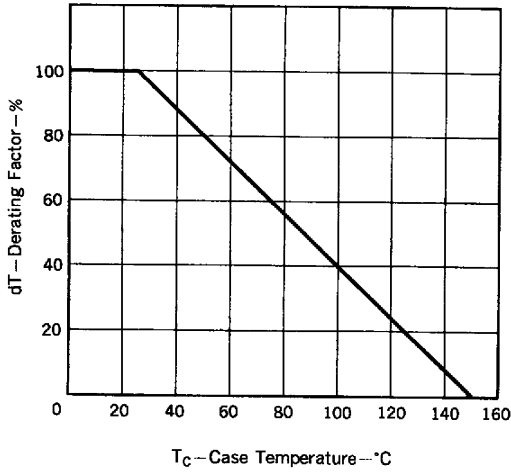
■ Marking

Marking	NF
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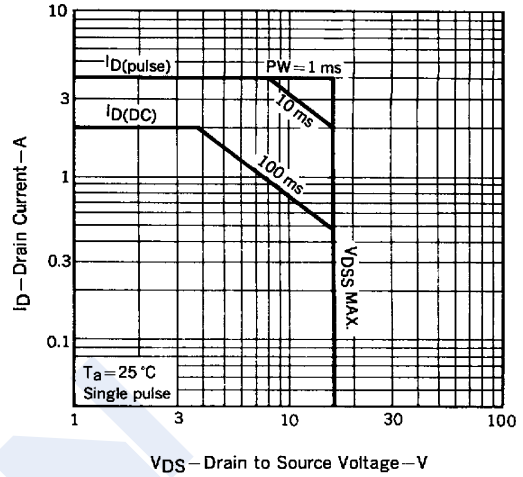
N-Channel MOSFET 2SK1587

■ Typical Characteristics

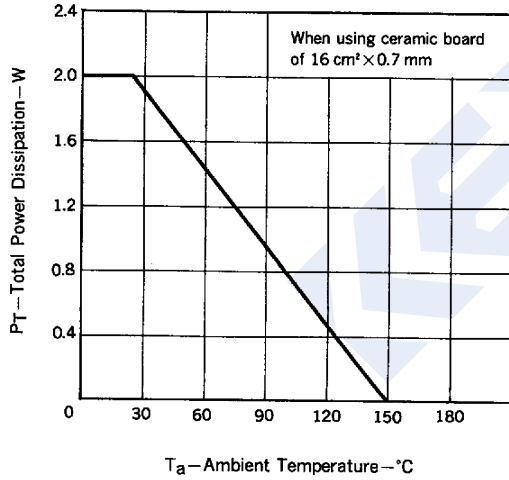
DERATING FACTOR OF FORWARD BIAS SAFE OPERATING AREA



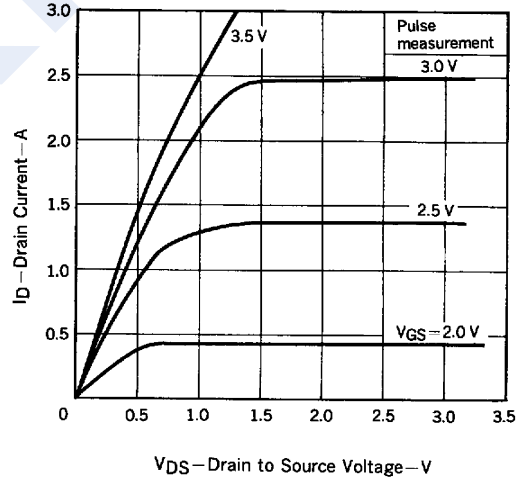
FORWARD BIAS SAFE OPERATING AREA



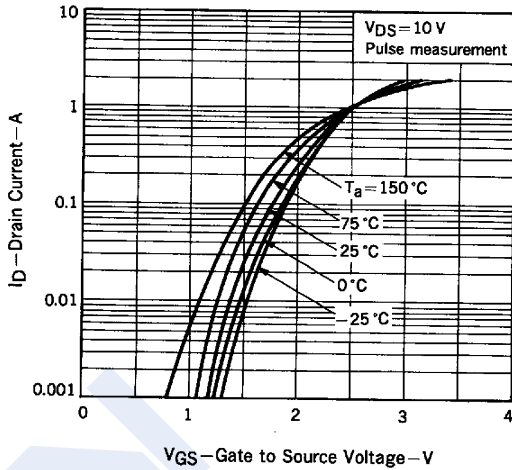
TOTAL POWER DISSIPATION vs. AMBIENT TEMPERATURE



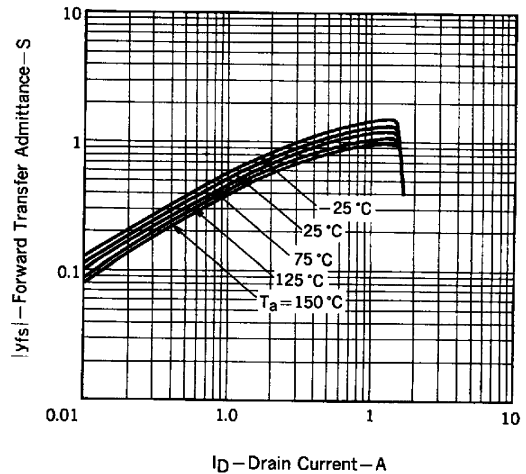
DRAIN CURRENT vs. DRAIN TO SOURCE VOLTAGE



TRANSFER CHARACTERISTICS



FORWARD TRANSFER ADMITTANCE vs. DRAIN CURRENT



N-Channel MOSFET 2SK1587

Typical Characteristics

