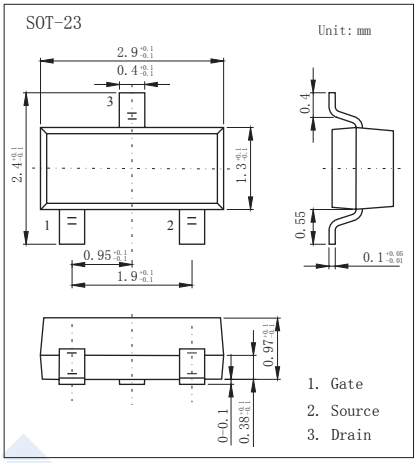
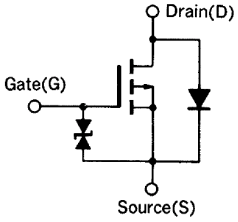
P-Channel MOSFET
2SJ185



■ Features

- V_{DS} (V) =-50V
- I_D =-0.1 A (V_{GS} =-4V)
- $R_{DS(ON)}$ < 20Ω (V_{GS} =-4V)
- $R_{DS(ON)}$ < 40Ω (V_{GS} =-2.5V)
- Comp;ementary to 2SK1399



■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	-50	V
Gate-Source Voltage	V_{GS}	±7	
Continuous Drain Current	I_D	-100	mA
Pulsed Drain Current (Note.1)	I_{DM}	-200	
Power Dissipation	P_D	200	mW
Junction Temperature	T_J	150	℃
Operating Temperature	Topt	-55 to 80	
Junction Storage Temperature Range	Tstg	-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	-50			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=-50V, V_{GS}=0V			-10	uA
Gate-Body leakage current	I_{GSS}	V_{DS}=0V, V_{GS}=±7V			±5	uA
Gate Cut off Voltage	$V_{GS(off)}$	V_{DS}=-3V,I_D=-1uA	-1.2		-2	V
Static Drain-Source On-Resistance	$R_{DS(ON)}$	V_{GS}=-2.5V, I_D=-1mA			40	Ω
		V_{GS}=-4V, I_D=-10mA			20	
Forward Transconductance	g_{FS}	V_{DS}=-3V, I_D=-10mA	20	42		mS
Input Capacitance	Ciss	V_{GS}=0V, V_{DS}=-3V, f=1MHz		22		pF
Output Capacitance	Coss			12		
Reverse Transfer Capacitance	Crss			4		
Turn-On DelayTime	$t_{d(on)}$	$V_{GS(on)}$=-3V, V_{DS}=-3V, I_D=-20mA, R_L=150Ω ,R_{GEN}=10Ω		80		ns
Turn-On Rise Time	t_r			230		
Turn-Off DelayTime	$t_{d(off)}$			40		
Turn-Off Fall Time	t_f			70		

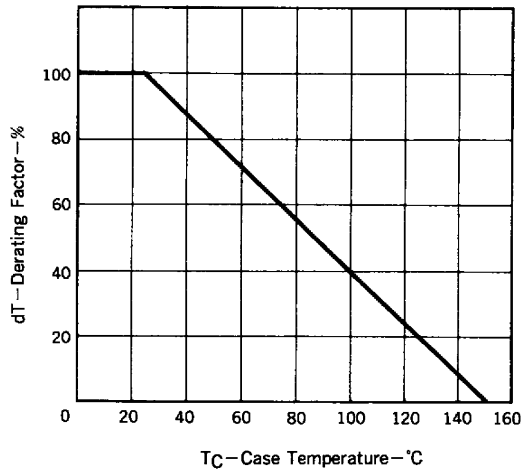
■ Marking

Marking	H12

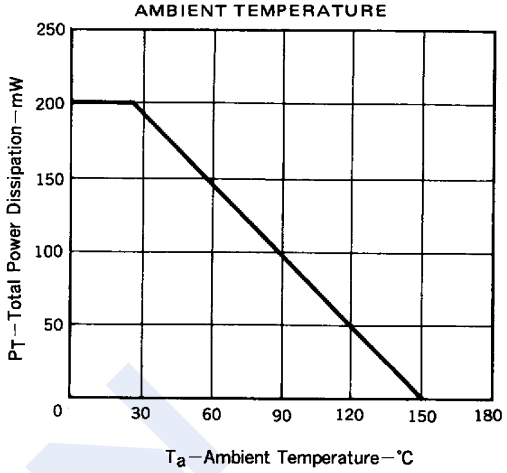
P-Channel MOSFET
2SJ185

■ Typical Characterisitics

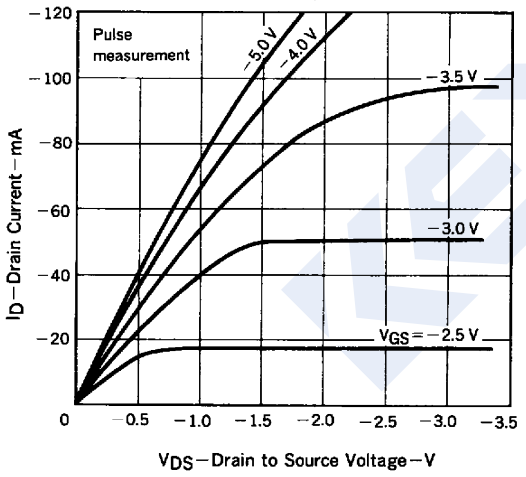
DERATING FACTOR OF FORWARD BIAS SAFE OPERATING AREA



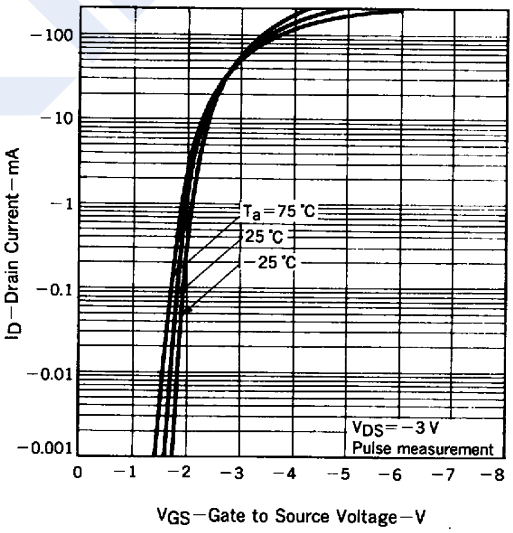
TOTAL POWER DISSIPATION vs. AMBIENT TEMPERATURE



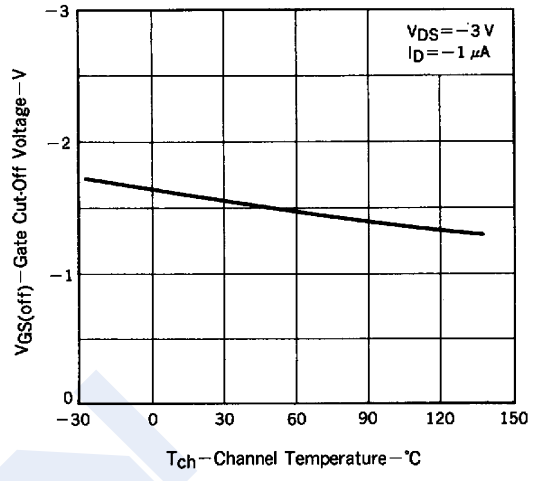
DRAIN CURRENT vs. DRAIN TO SOURCE VOLTAGE



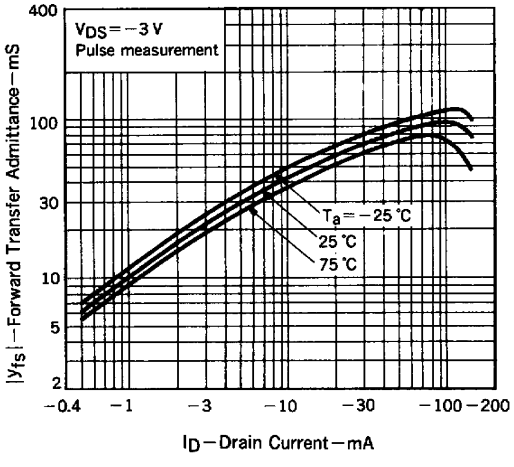
TRANSFER CHARACTERISTICS



GATE TO SOURCE CUTOFF VOLTAGE vs. CHANNEL TEMPERATURE



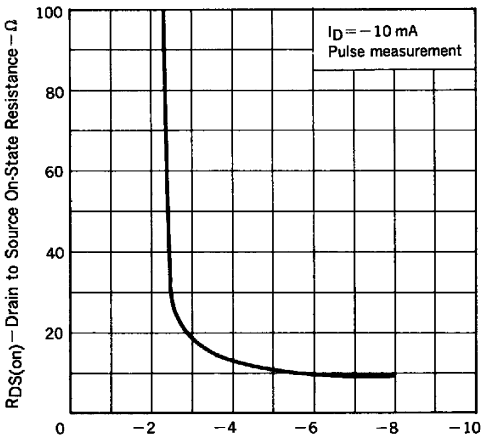
FORWARD TRANSFER ADMITTANCE vs. DRAIN CURRENT



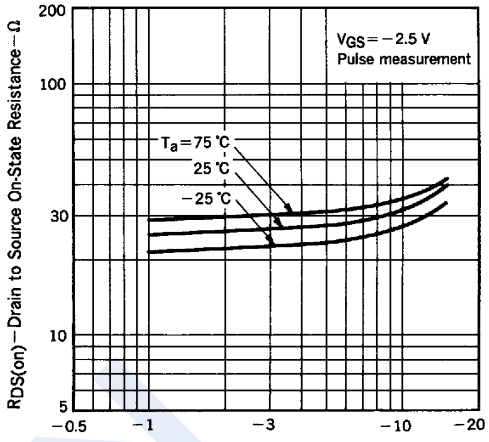
P-Channel MOSFET
2SJ185

■ Typical Characterisitics

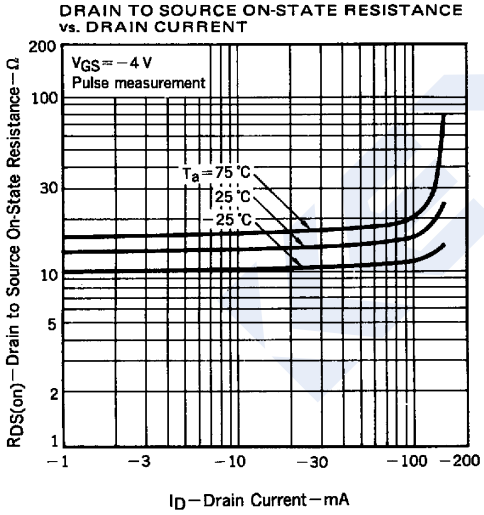
DRAIN TO SOURCE ON-STATE RESISTANCE vs. GATE TO SOURCE VOLTAGE



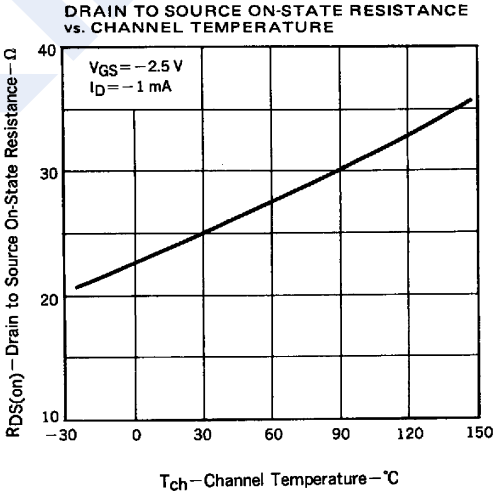
DRAIN TO SOURCE ON-STATE RESISTANCE vs. DRAIN CURRENT



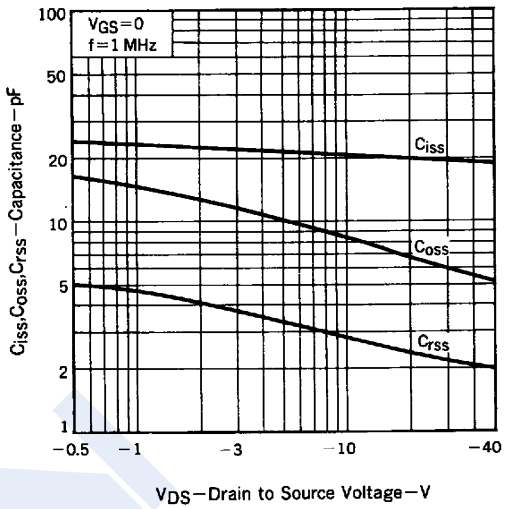
DRAIN TO SOURCE ON-STATE RESISTANCE vs. DRAIN CURRENT



DRAIN TO SOURCE ON-STATE RESISTANCE vs. CHANNEL TEMPERATURE



CAPACITANCE vs. DRAIN TO SOURCE VOLTAGE



SWITCHING CHARACTERISTICS