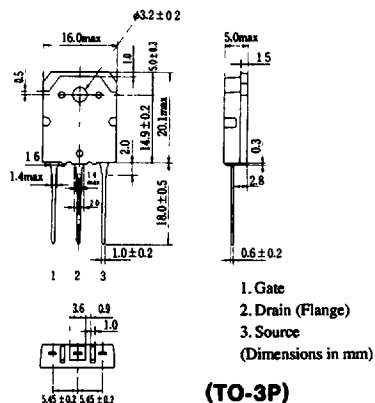
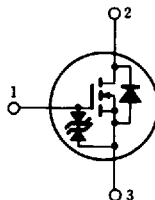


HIGH SPEED POWER SWITCHING

■ FEATURES

- Low On-Resistance
- High Speed Switching
- Low Drive Current
- No Secondary Breakdown
- Suitable for Switching Regulator, DC-DC Converter and Motor Driver



■ **ABSOLUTE MAXIMUM RATINGS** ($T_a=25^{\circ}\text{C}$)

Item	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	150	V
Gate-Source Voltage	V_{GSS}	± 20	V
Drain Current	I_D	20	A
Drain Peak Current	$I_{D(pk)}$ *	80	A
Body-Drain Diode Reverse Drain Current	I_{DR}	20	A
Channel Dissipation	P_{ch} **	120	W
Channel Temperature	T_{ch}	150	°C
Storage Temperature	T_{stg}	-55 ~ +150	°C

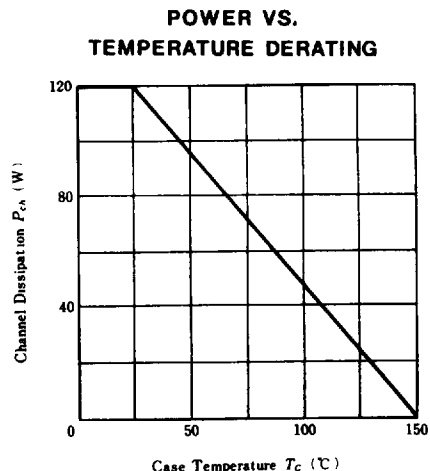
* PW ≤ 10 μs, duty cycle ≤ 1% ** Value at T_c = 25°C

HITACHI/(OPTOELECTRONICS)

■ ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$)

Item	Symbol	Test Condition	min.	typ.	max.	Unit
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	$I_D=10mA, V_{GS}=0$	150	—	—	V
Gate-Source Breakdown Voltage	$V_{(BR)GSS}$	$I_G=\pm 100\mu A, V_{DS}=0$	± 20	—	—	V
Gate-Source Leak Current	I_{GSS}	$V_{GS}=\pm 16V, V_{DS}=0$	—	—	± 10	μA
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=120V, V_{GS}=0$	—	—	250	μA
Gate-Source Cutoff Voltage	$V_{GS(off)}$	$I_D=1mA, V_{DS}=10V$	2.0	—	4.0	V
Static Drain-Source on State Resistance	$R_{DS(on)}$	$I_D=10A, V_{GS}=10V^*$	—	0.06	0.075	Ω
Forward Transfer Admittance	$ y_{fs} $	$I_D=10A, V_{DS}=10V^*$	9	15	—	S
Input Capacitance	C_{iss}	$V_{DS}=10V, V_{GS}=0, f=1MHz$	—	2200	—	pF
Output Capacitance	C_{oss}		—	1000	—	pF
Reverse Transfer Capacitance	C_{rss}		—	220	—	pF
Turn-on Delay Time	$t_{d(on)}$	$I_D=10A, V_{GS}=10V, R_L=3\Omega$	—	35	—	ns
Rise Time	t_r		—	190	—	ns
Turn-off Delay Time	$t_{d(off)}$		—	200	—	ns
Fall Time	t_f		—	160	—	ns
Body-Drain Diode Forward Voltage	V_{DF}	$I_F=20A, V_{GS}=0$	—	1.2	—	V
Body-Drain Diode Reverse Recovery Time	t_{rr}	$I_F=20A, V_{GS}=0, di_F/dt=50A/\mu s$	—	250	—	ns

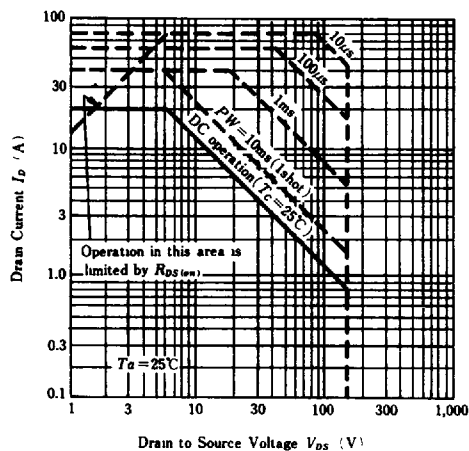
•Pulse Test



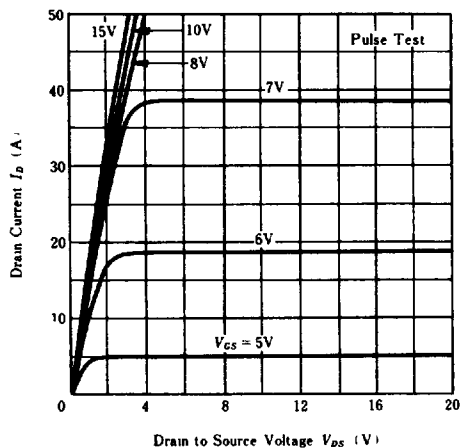
HITACHI/(OPTOELECTRONICS)

查询"2SK622"供应商

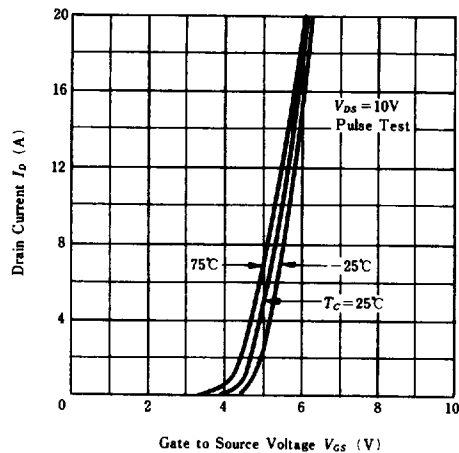
MAXIMUM SAFE OPERATION AREA



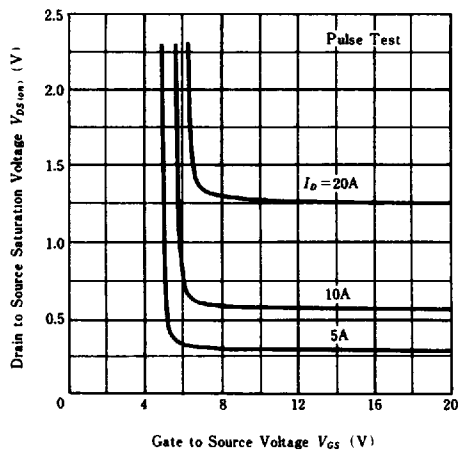
TYPICAL OUTPUT CHARACTERISTICS



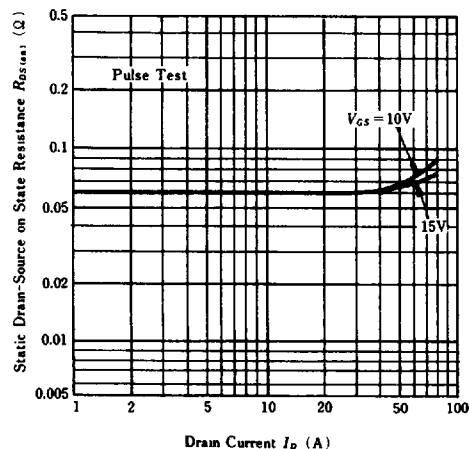
TYPICAL TRANSFER CHARACTERISTICS



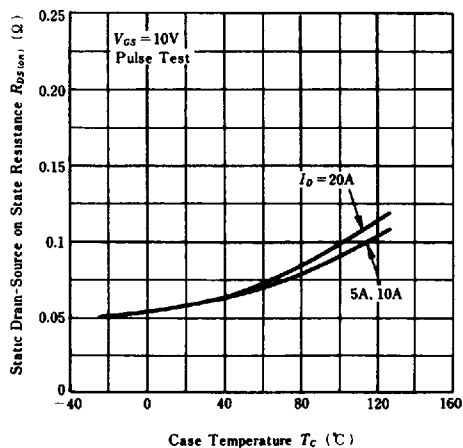
DRAIN-SOURCE SATURATION VOLTAGE VS. GATE-SOURCE VOLTAGE



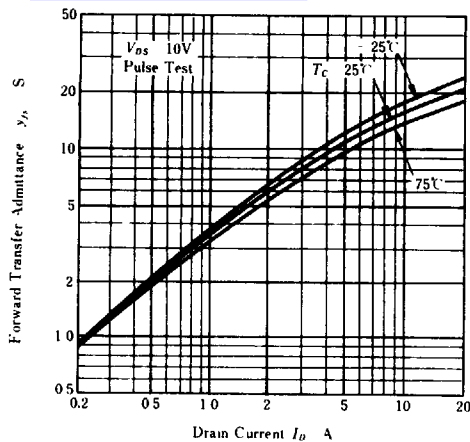
STATIC DRAIN-SOURCE ON STATE RESISTANCE VS. DRAIN CURRENT



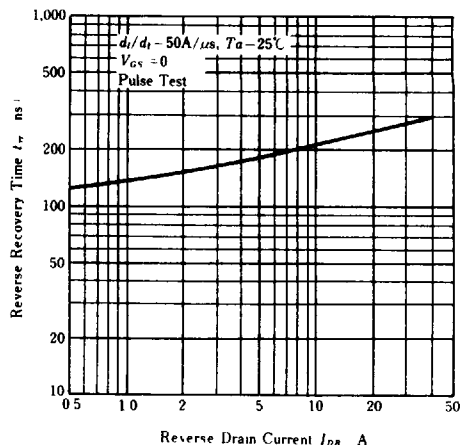
STATIC DRAIN-SOURCE ON STATE RESISTANCE VS. TEMPERATURE



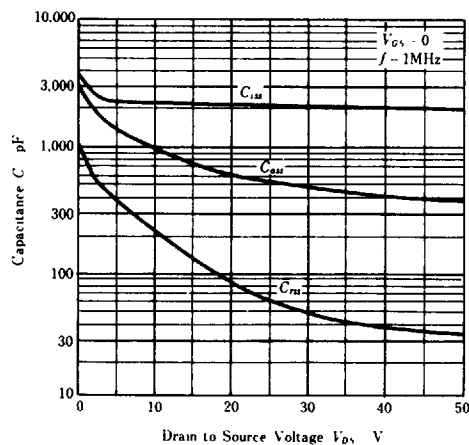
**FORWARD TRANSFER ADMITTANCE
VS. DRAIN CURRENT**



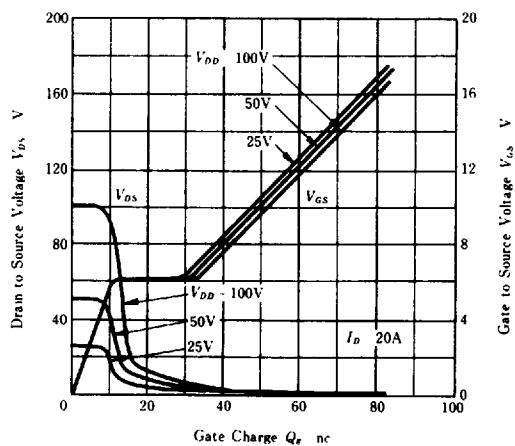
**BODY-DRAIN DIODE REVERSE
RECOVERY TIME**



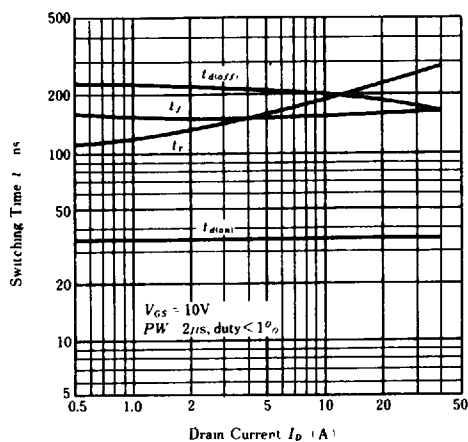
**TYPICAL CAPACITANCE
VS. DRAIN-SOURCE VOLTAGE**



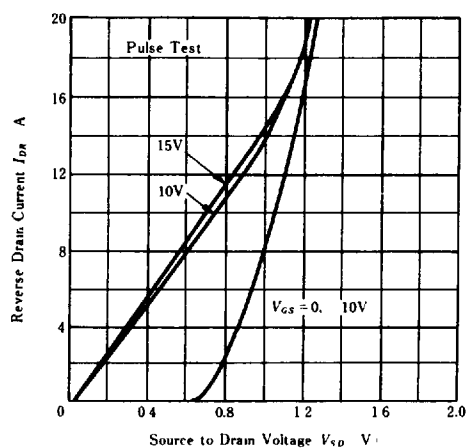
DYNAMIC INPUT CHARACTERISTICS



SWITCHING CHARACTERISTICS



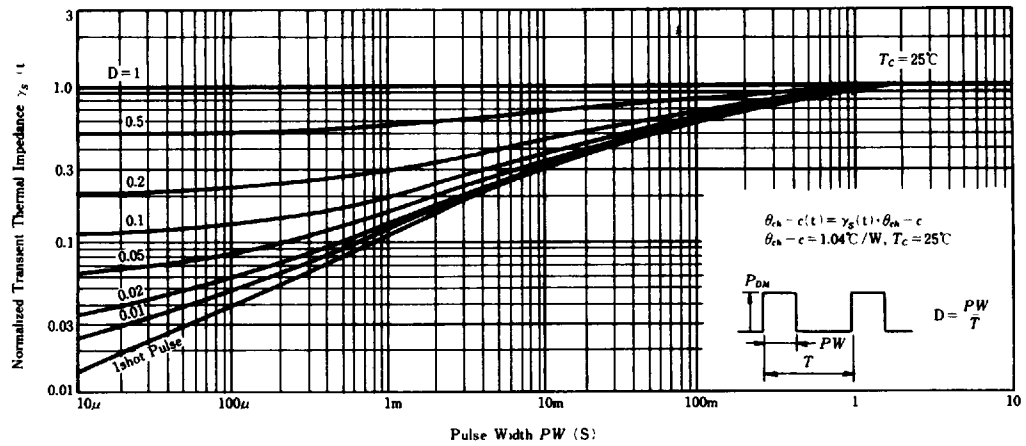
**REVERSE DRAIN CURRENT VS.
SOURCE TO DRAIN VOLTAGE**



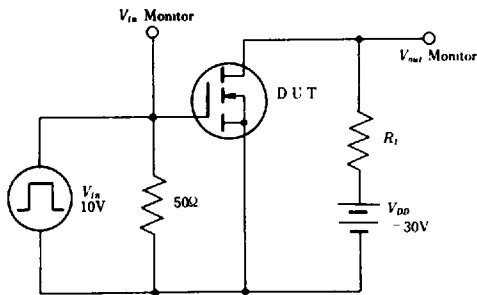
HITACHI/(OPTOELECTRONICS)

[查询"2SK622"供应商](#)

NORMALIZED TRANSIENT THERMAL IMPEDANCE VS. PULSE WIDTH



SWITCHING TIME TEST CIRCUIT



WAVEFORMS

