

Specification Tentative	Products MOSFET	Type 2SK1975
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1. TYPE. 2SK1975
2. DESCRIPTION. Silicon N-Channel MOS FET.
3. APPLICATION. Switching.
4. ABSOLUTE MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

Item	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	450	V
Gate-Source Voltage	V_{GSS}	± 30	V
Drain Current	I_D	10	A
Power Dissipation	P_D	80	W
Channel Temperature	T_{ch}	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	$-55 \sim 150$	$^\circ\text{C}$

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

Item	Symbol	Test Condition	min.	typ.	max.	Unit
Gate-Source Leak Current	I_{GSS}	$V_{GS} = \pm 30\text{V}, V_{DS} = 0\text{V}$	—	—	± 100	nA
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	$I_D = 1\text{mA}, V_{GS} = 0\text{V}$	450	—	—	V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = 450\text{V}, V_{GS} = 0\text{V}$	—	—	100	μA
Gate Threshold Voltage	$V_{GS(off)}$	$I_D = 1\text{mA}, V_{DS} = 10\text{V}$	2.0	—	4.0	V
Forward Transfer Admittance	$ Y_{fs} $	$I_D = 5.0\text{A}, V_{DS} = 10\text{V}$	5.0	8.0	—	S
Static Drain-Source On-State Resistance	$R_{DS(ON)}$	$I_D = 5.0\text{A}, V_{GS} = 10\text{V}$	—	0.6	1.0	Ω
Input Capacitance	C_{iss}	$V_{DS} = 10\text{V}$	—	1740	—	pF
Output Capacitance	C_{oss}	$V_{GS} = 0\text{V}$	—	270	—	pF
Reverse Transfer Capacitance	C_{rss}	$f = 1\text{MHz}$	—	95	—	pF
Turn-On Delay Time	$t_{d(on)}$	$I_D = 5.0\text{A}, V_{DD} = 150\text{V}$	—	20	—	ns
Rise Time	t_r	$R_L = 30\Omega$	—	30	—	ns
Turn-Off Delay Time	$t_{d(off)}$	$V_{GS} = 10\text{V}$	—	100	—	ns
Fall Time	t_f	$R_{in} = 10\Omega$	—	35	—	ns
Reverse Recovery Time	t_{rr}	$I_{SD} = 10\text{A}, V_{GS} = 0\text{V}$	—	500	—	ns
Reverse Recovery Charge	Q_{rr}	$di/dt = 100\text{A}/\mu\text{s}$	—	4.5	—	μC

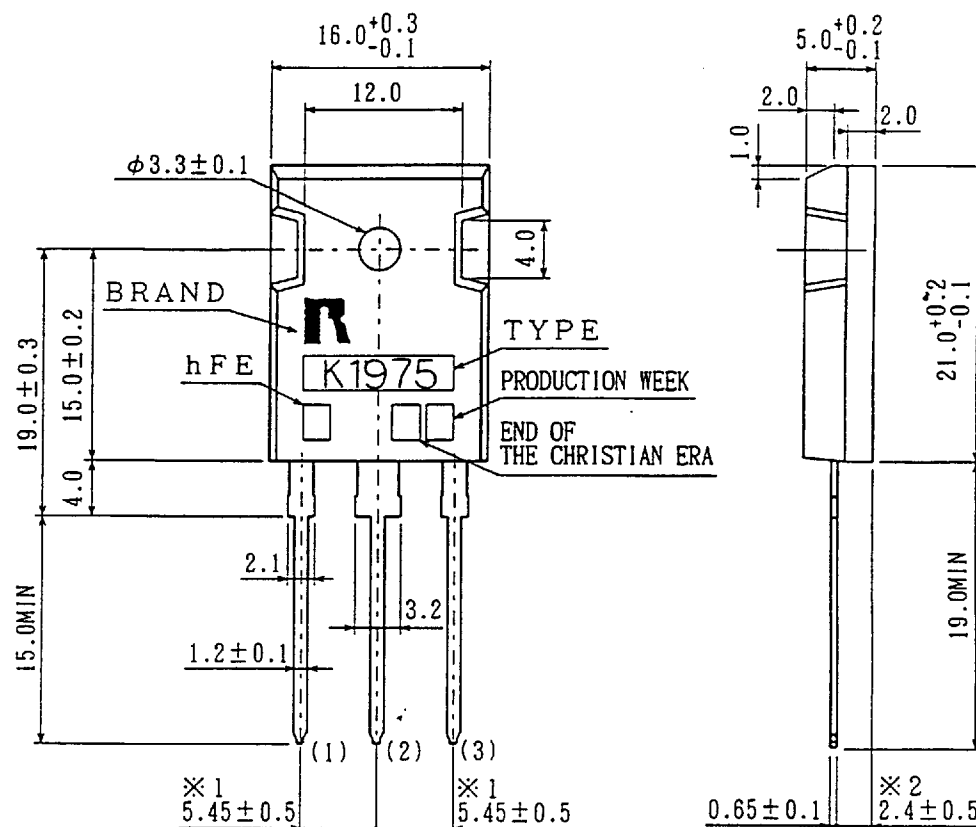
ROHM CO., LTD.

Design <i>T. Koushi</i>	Approval <i>T. Kito</i>	Specification No. TKK1975-3	Date Jul 8 / 92
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Specification	Products	Type
	2C-247	2SK1975

Figure 1.

FD:fig-8881



Note ※1 the neck of mold package is 5.45±0.1

※2 the neck of mold package is 2.4±0.1

UNIT : mm

- (1) Base
- (2) Collector
- (3) Emitter

A factory

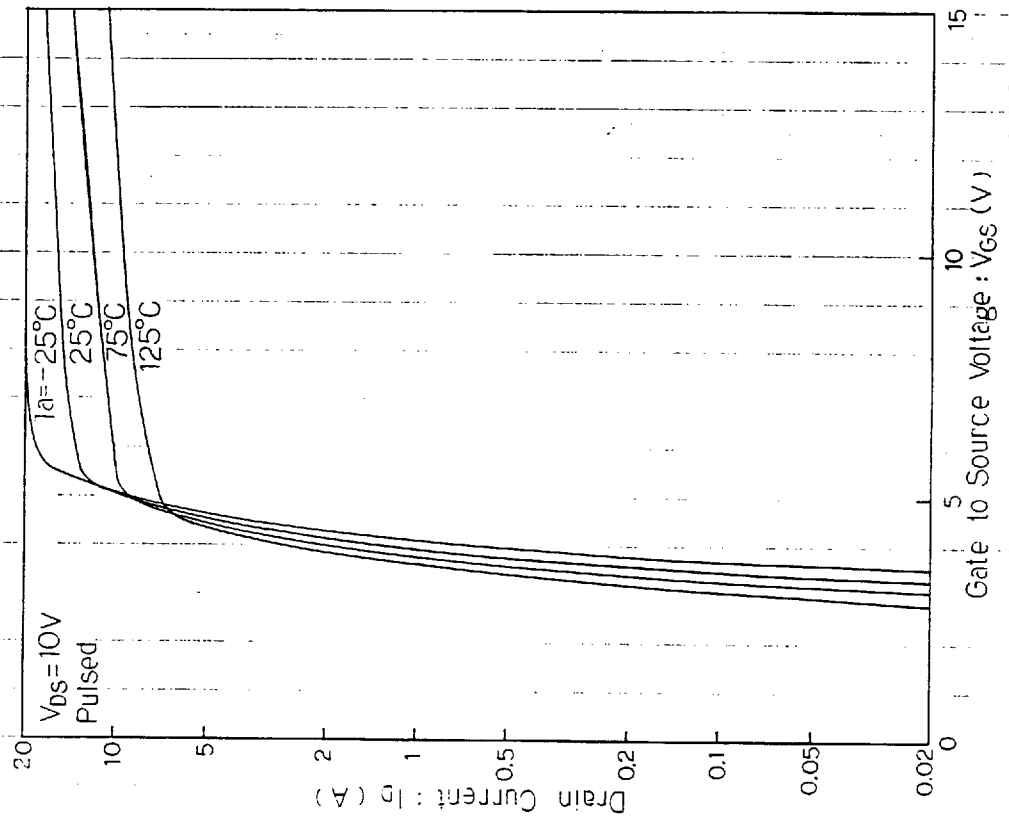
APOLLO ELECTRONICS CO., LTD.

883 Kamikitajima, Chikugo, Fukuoka 833, Japan

The net weight

2SK1975

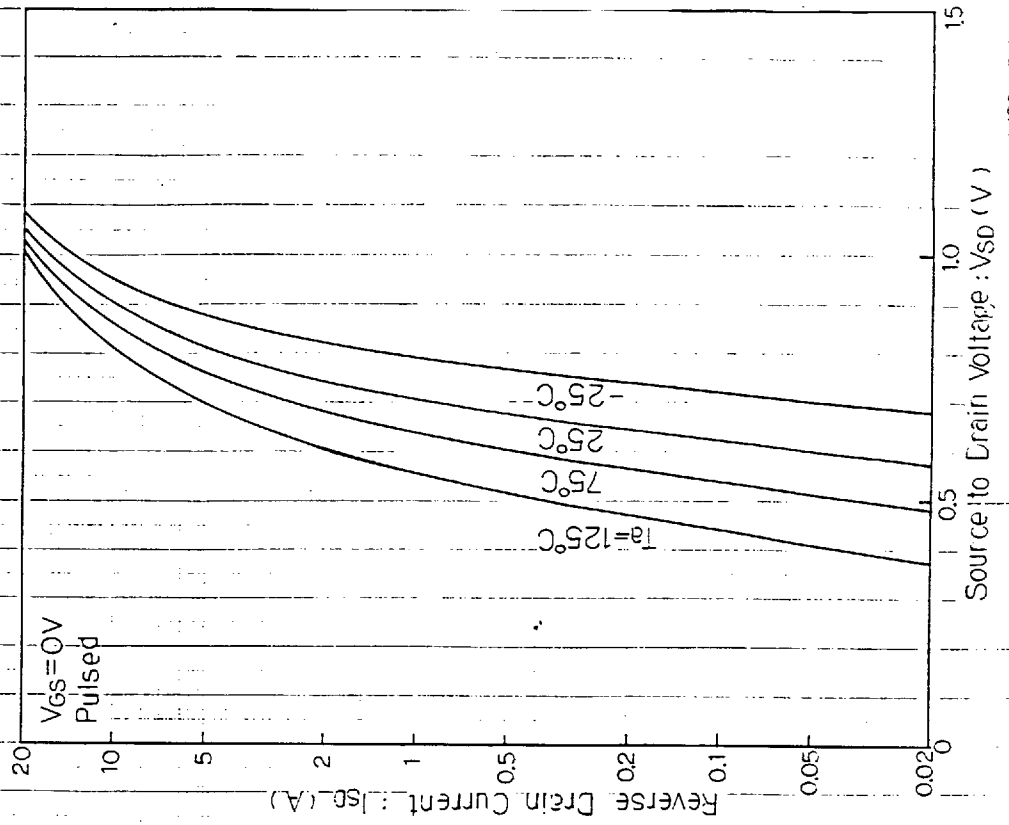
TRANSFER CHARACTERISTICS



K1975-B-1

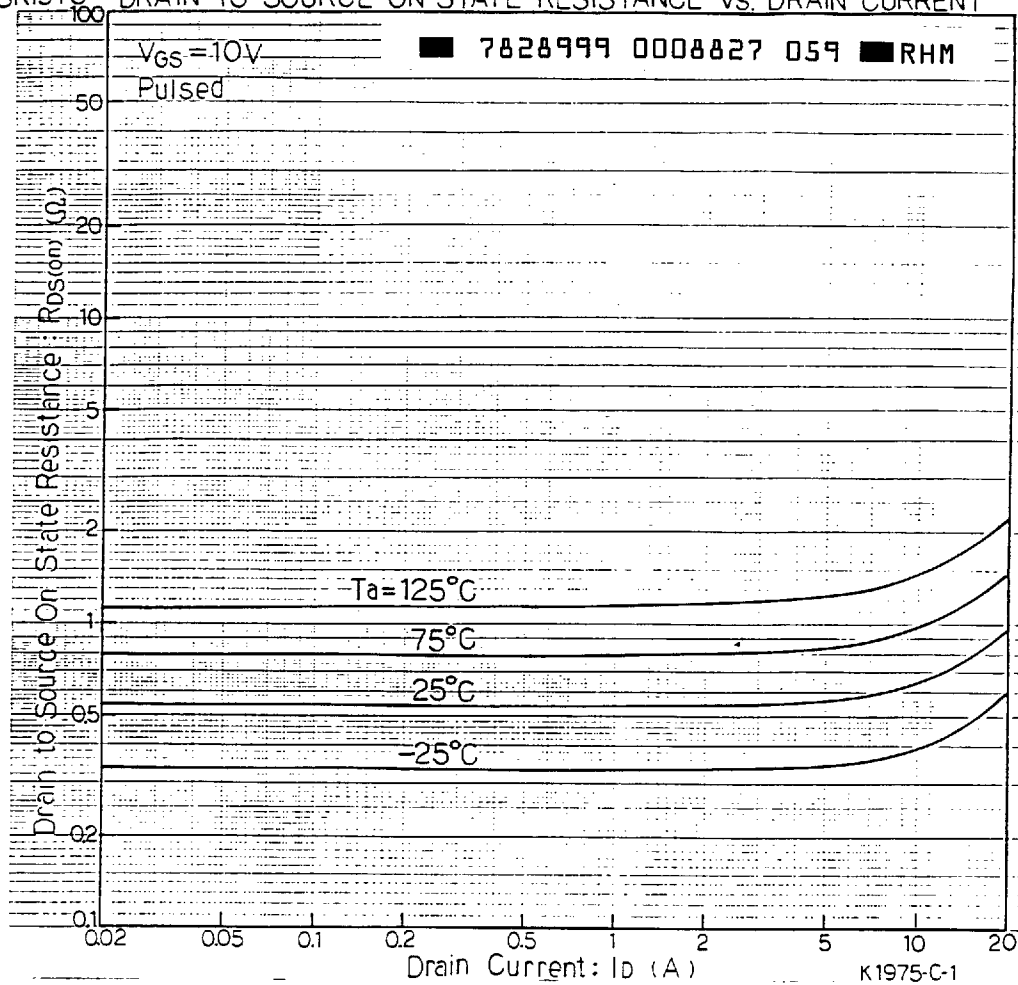
2SK1975

REVERSE DRAIN CURRENT V_S SOURCE TO DRAIN VOLTAGE



K1975-E-1

2SK1975 DRAIN TO SOURCE ON STATE RESISTANCE VS. DRAIN CURRENT



2SK1975 FOWARD TRANSFER ADMITTANCE VS. DRAIN CURRENT

