

SANYO

No.1789B

2SK545

N-Channel Junction Silicon FET

Impedance Converter Applications**Applications**

- Impedance converter applications.
- Infrared sensor.

Features

- Small I_{GSS} .
- Small C_{iss} .
- Ultracompact package permitting 2SK545-applied sets to be compact.

Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

Drain-to-Source Voltage	V_{DS}	40	V
Gate-to-Drain Voltage	V_{GDS}	-40	V
Gate Current	I_G	10	mA
Drain Current	I_D	1	mA
Power Dissipation	P_D	125	mW
Junction Temperature	T_j	125	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to +125	$^\circ\text{C}$

Electrical Characteristics at $T_a = 25^\circ\text{C}$

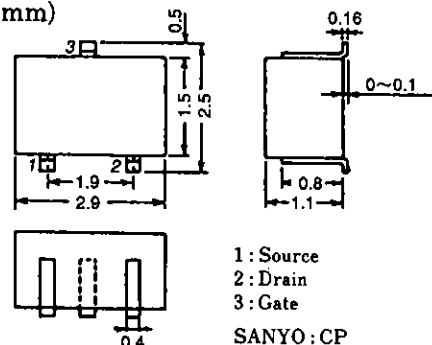
			min	typ	max	unit
Gate-to-Drain Breakdown Voltage	$V_{(BR)GDS}$	$I_D = -10\mu\text{A}, V_{DS} = 0$	-40			V
Gate-to-Source Leakage Current	I_{GSS}	$V_{GS} = -20\text{V}, V_{DS} = 0$			-500	pA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS} = 10\text{V}, I_D = 1\mu\text{A}$	-1.5		-4.0	V
Drain Current	I_{DSS}	$V_{DS} = 10\text{V}, V_{GS} = 0$	30※		300※	μA
Forward Transfer Admittance	$ Y_{fs} $	$V_{DS} = 10\text{V}, V_{GS} = 0, f = 1\text{kHz}$	0.05	0.13		mS
Input Capacitance	C_{iss}	$V_{DS} = 10\text{V}, V_{GS} = 0, f = 1\text{MHz}$		1.7		pF
Reverse Transfer Capacitance	C_{rss}	$V_{DS} = 10\text{V}, V_{GS} = 0, f = 1\text{MHz}$		0.7		pF

※ The 2SK545 is classified by I_{DSS} as follows (unit: μA):

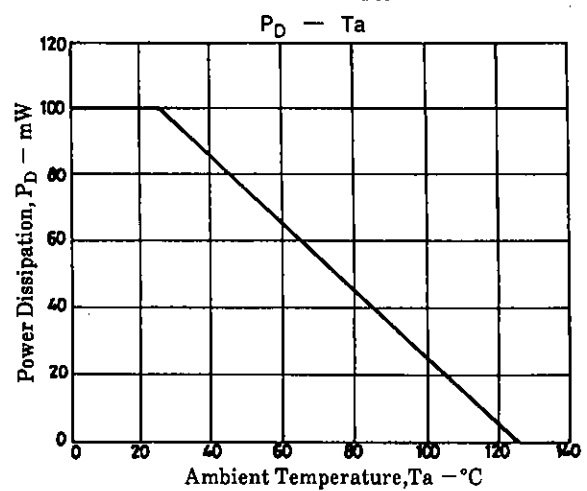
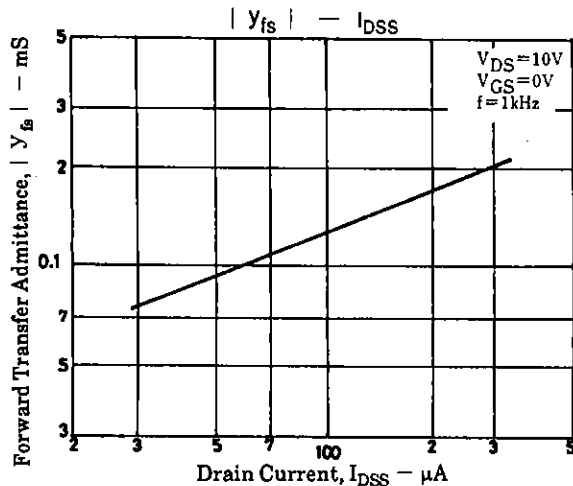
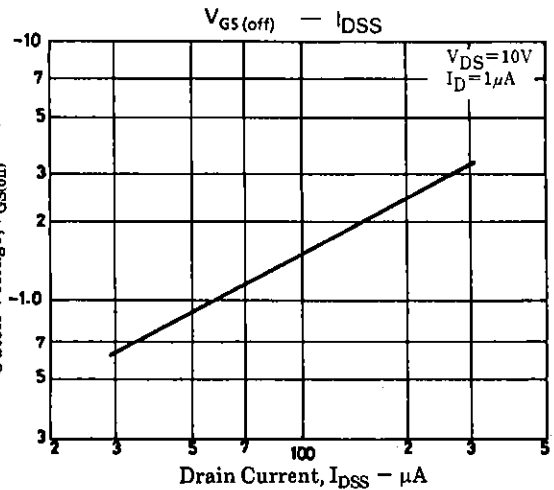
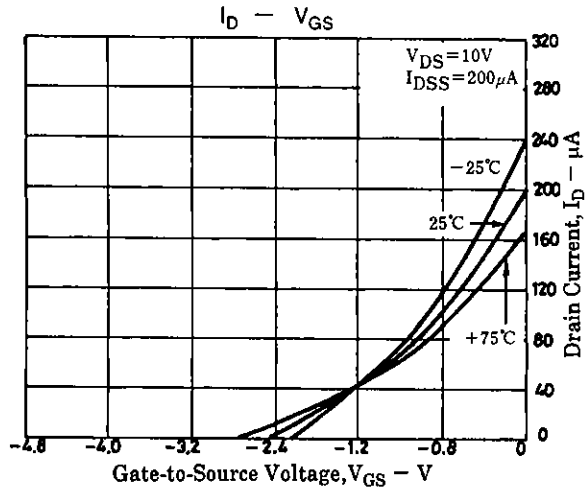
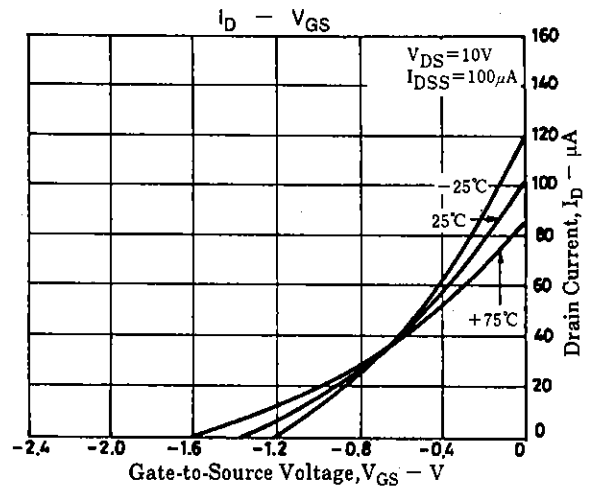
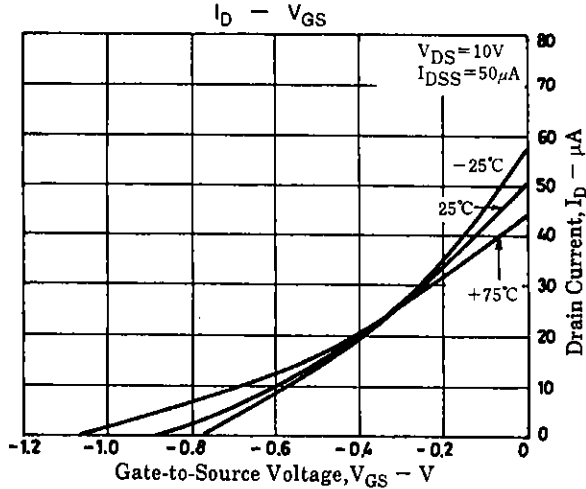
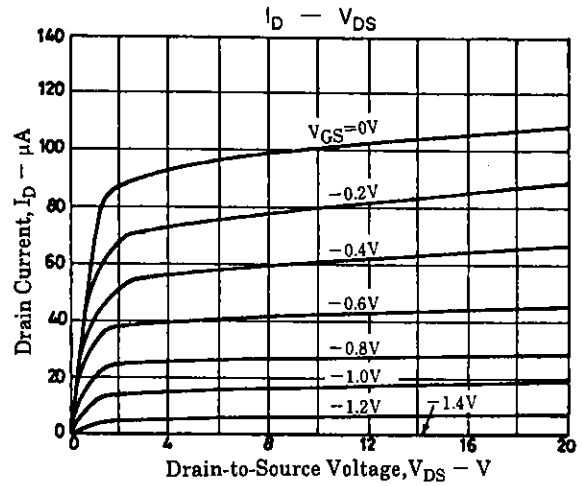
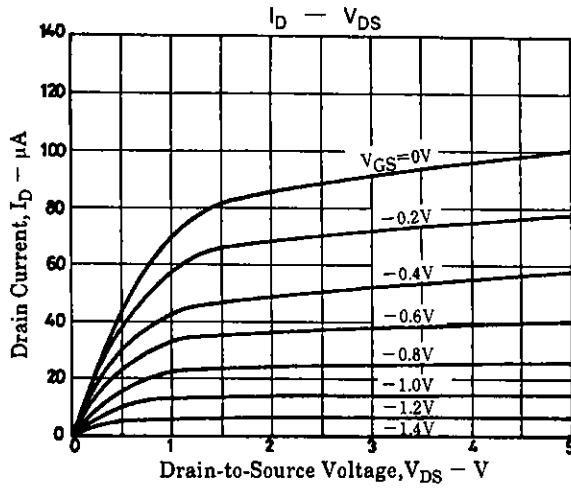
30	10	80	60	11	180	150	12	300
----	----	----	----	----	-----	-----	----	-----

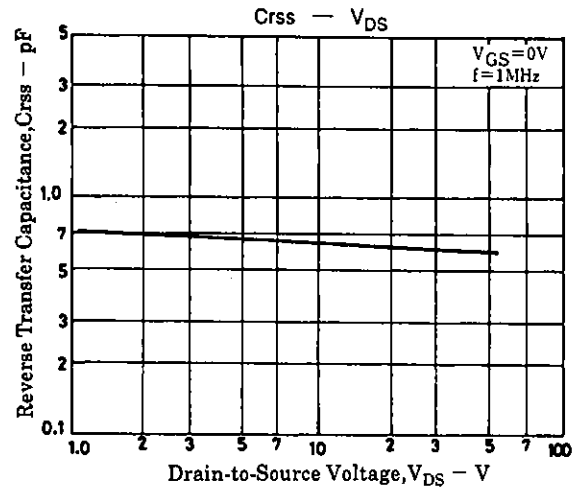
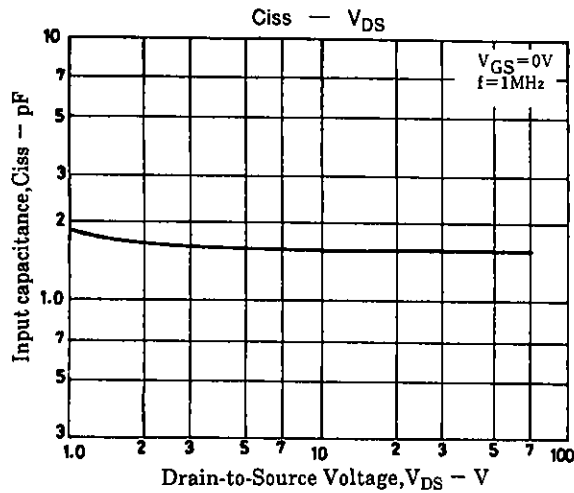
(Note) Marking : B

I_{DSS} rank : 10, 11, 12

Package Dimensions 2050A
(unit: mm)

SANYO Electric Co., Ltd. Semiconductor Business Headquarters
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110 JAPAN





■ No products described or contained herein are intended for use in surgical implants, life-support systems, aerospace equipment, nuclear power control systems, vehicles, disaster/crime-prevention equipment and the like, the failure of which may directly or indirectly cause injury, death or property loss.

■ Anyone purchasing any products described or contained herein for an above-mentioned use shall:

- ① Accept full responsibility and indemnify and defend SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors and all their officers and employees, jointly and severally, against any and all claims and litigation and all damages, cost and expenses associated with such use;
- ② Not impose any responsibility for any fault or negligence which may be cited in any such claim or litigation on SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors or any of their officers and employees jointly or severally.

■ Information (including circuit diagrams and circuit parameters) herein is for example only; it is not guaranteed for volume production. SANYO believes information herein is accurate and reliable, but no guarantees are made or implied regarding its use or any infringements of intellectual property rights or other rights of third parties.

This catalog provides information as of October, 1996. Specifications and information herein are subject to change without notice.