

**2SK545**

Impedance Converter Applications

Applications

- Impedance converter applications.
- Infrared sensor.

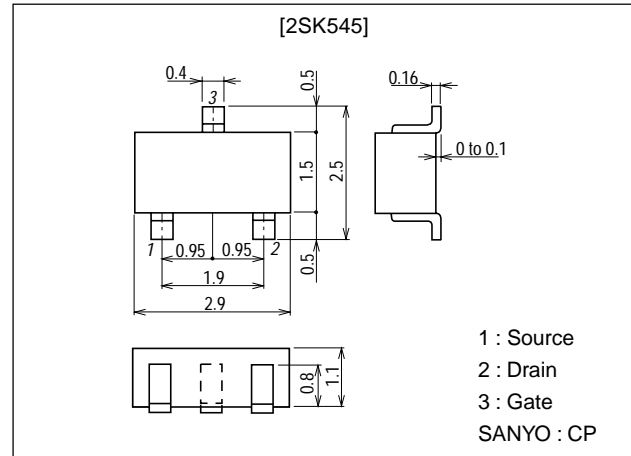
Features

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

Package Dimensions

unit:mm

2050A



Specifications

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

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V_{DSS}		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 $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
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
Zero-Gate Voltage Drain Current	I_{DSS}^*	$V_{DS} = 10\text{V}$, $V_{GS} = 0$	30*		300*	μA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS} = 10\text{V}$, $I_D = 1\mu\text{A}$		-1.5	-4.0	V
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) :

(Note) Marking : B

I_{DSS} rank : 10, 11, 12

30	10	80	60	11	180	150	12	300
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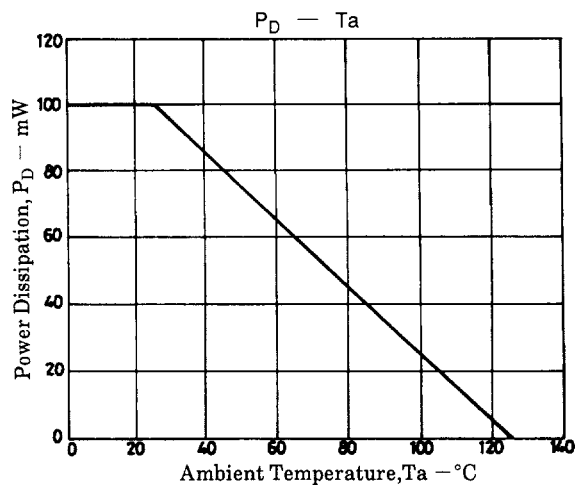
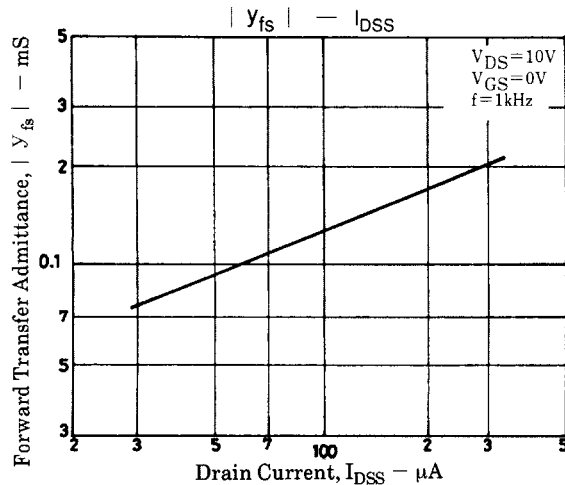
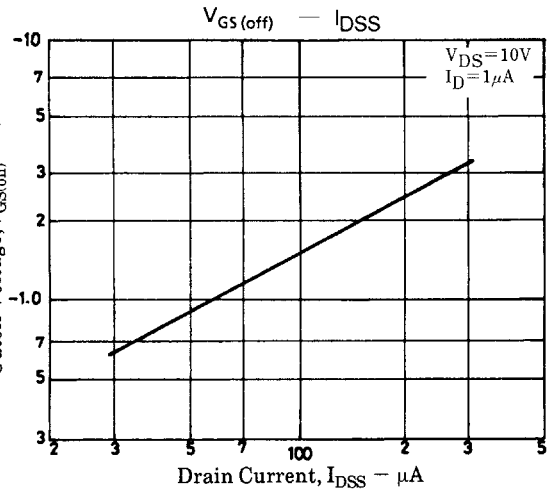
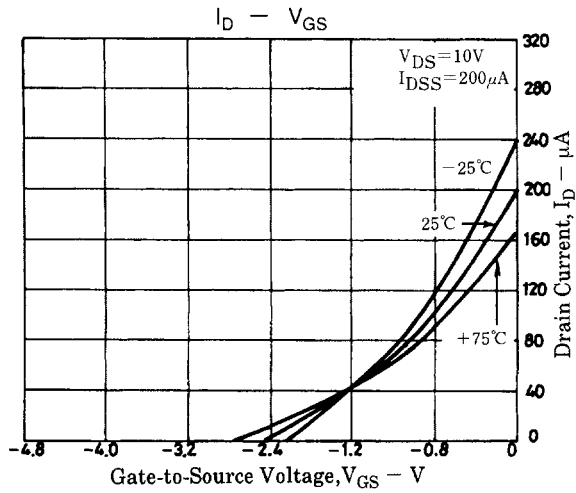
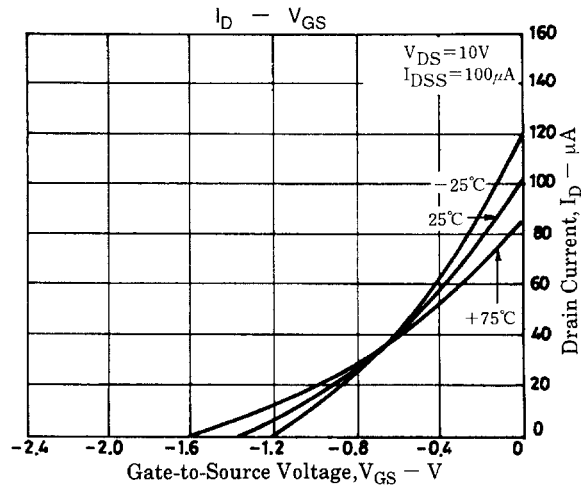
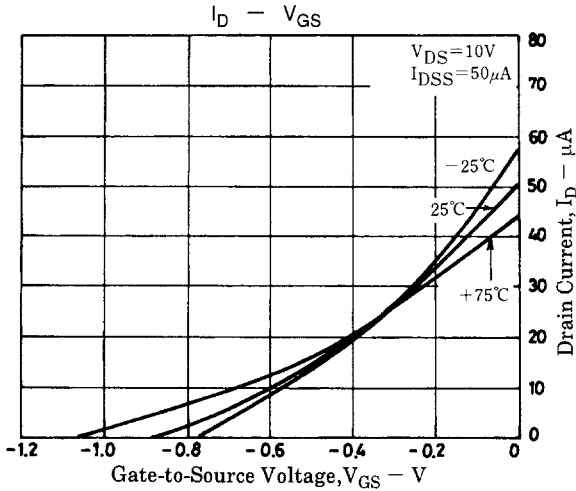
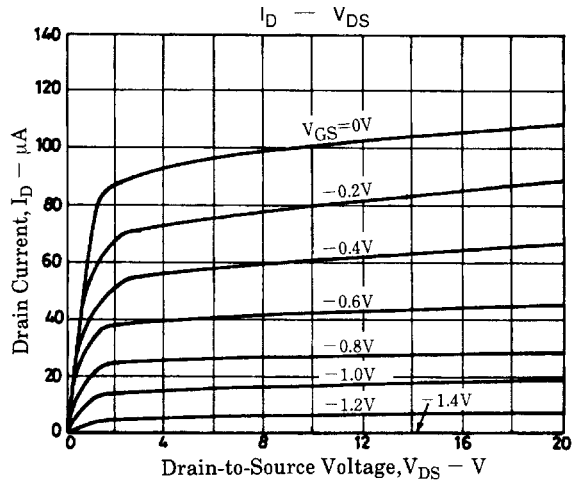
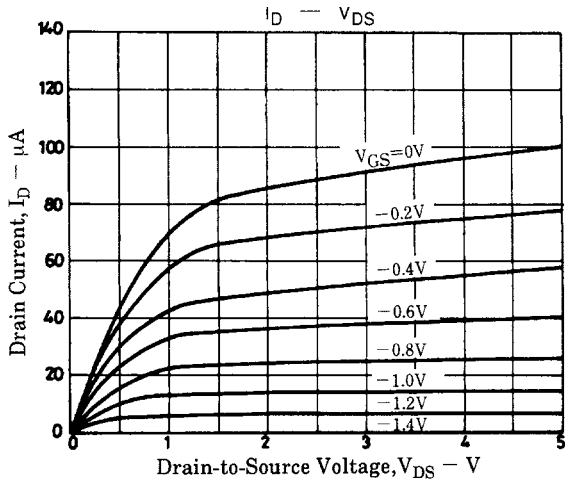
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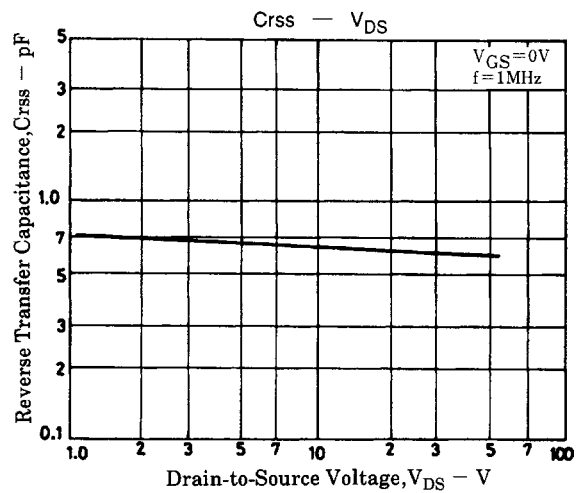
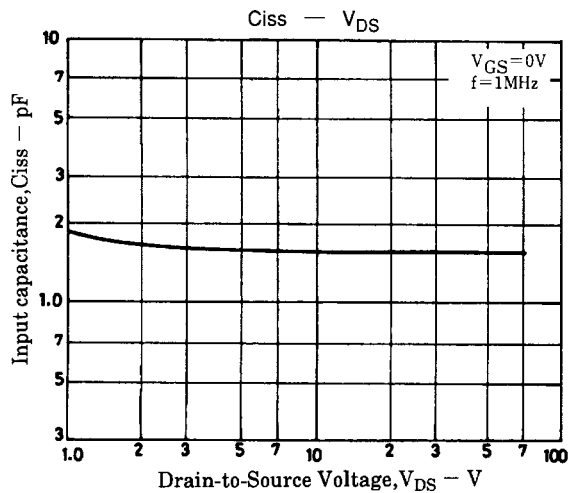
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