



No. C933B



**2SK334**

Silicon N-Channel Junction-Type Field Effect TR  
FOR CONDENSER MICROPHONES

**FEATURE**

\* Because it has an ultra-compact outline, sets can be made compact.

ABSOLUTE MAXIMUM RATINGS/ $T_a = 25^\circ\text{C}$		unit	
Drain-gate current	$V_{DGO}$	-20	V
Gate current	$I_G$	10	mA
Allowable power dissipation	$P_D$	100	mW
Junction temperature	$T_j$	125	$^\circ\text{C}$
Storage ambient temperature	$T_{stg}$	-40 ~ +125	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS/ $T_a = 25^\circ\text{C}$		min	typ	max	unit
Drain current	$I_{DSS}^*$ $V_{DS} = 10\text{ V}, V_{GS} = 0\text{ V}$	60*		800*	$\mu\text{A}$

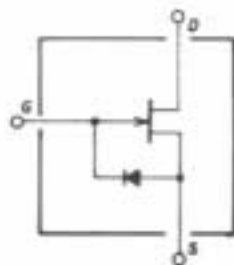
[ $T_a = 25^\circ\text{C}, V_{CC} = 4.5\text{ V}, R_D = 680\ \Omega, C_{in} = 15\text{ pF}$ , in a specified test circuit (conforming with application circuit)].

			min	typ	max	unit
Transmission loss	$G_v$			-5		dB
Transmission loss voltage-drop characteristics	$\Delta G_{vV}$ $V_{CC} = 4.5 \sim 1.5\text{ V}, f = 1\text{ kHz}$ $v_i = 10\text{ mV}$				-3	dB
Transmission loss frequency characteristics	$\Delta G_{vf}$ $f = 1\text{ k} \sim 110\text{ Hz}, v_i = 10\text{ mV}$				-1	dB
Input impedance	$z_i$ $f = 1\text{ kHz}$	20				$\text{M}\Omega$
Output noise voltage	$V_{NO}$ $v_i = 0, \text{A-curve}$				-110	dB

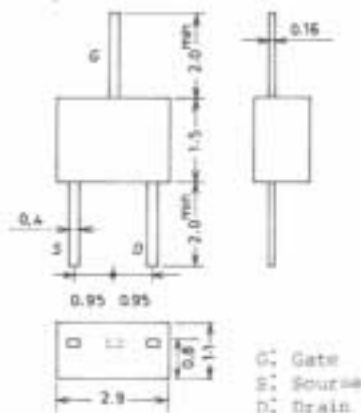
\* 2SK334 is graded as follows by drain current  $I_{DSS}$ : (unit:  $\mu\text{A}$ )

60	N11	180	150	N12	300	250	N13	450	400	N14	800
----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Equivalent circuit



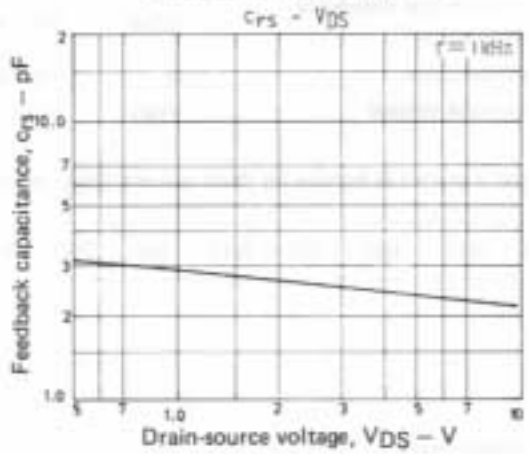
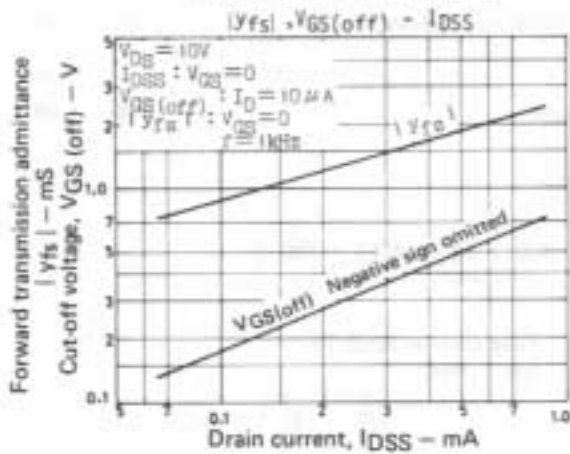
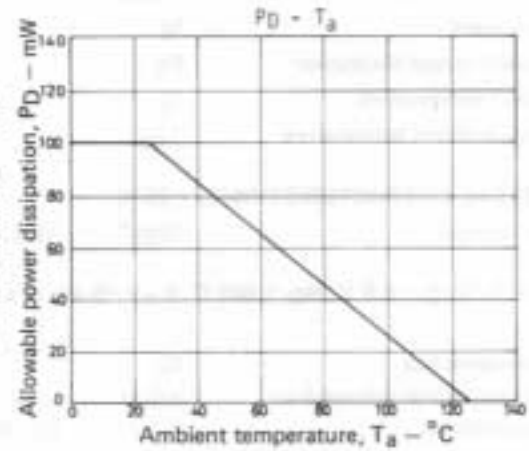
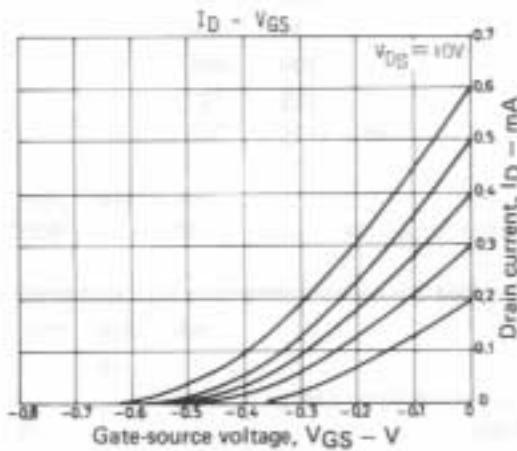
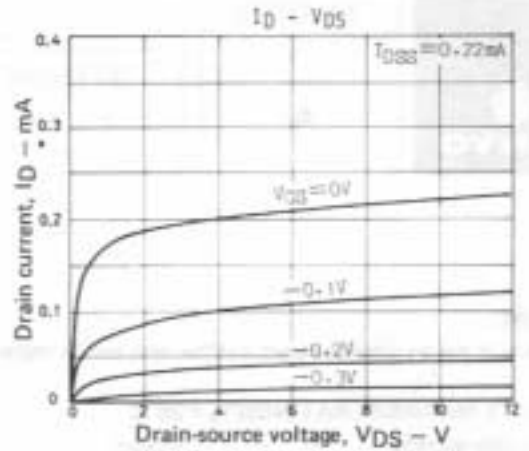
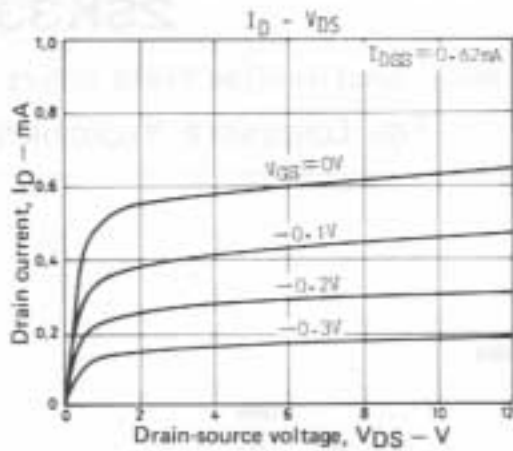
Case Outline 2025-TR  
(unit: mm)



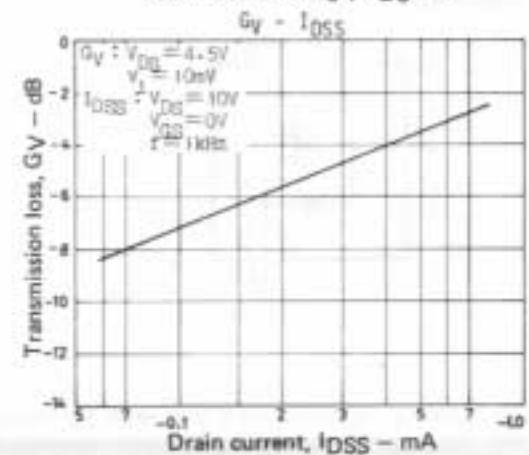
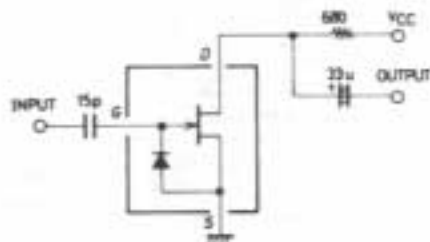
G: Gate  
S: Source  
D: Drain

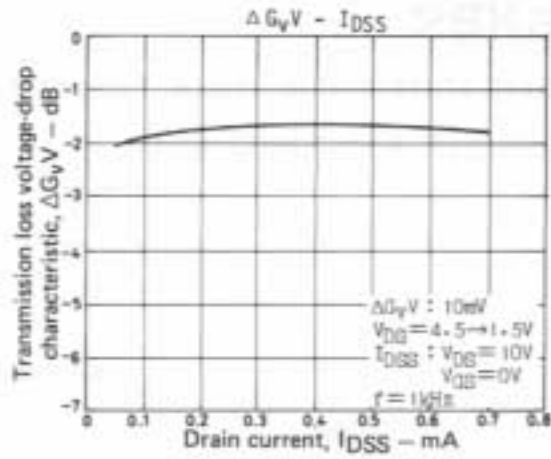
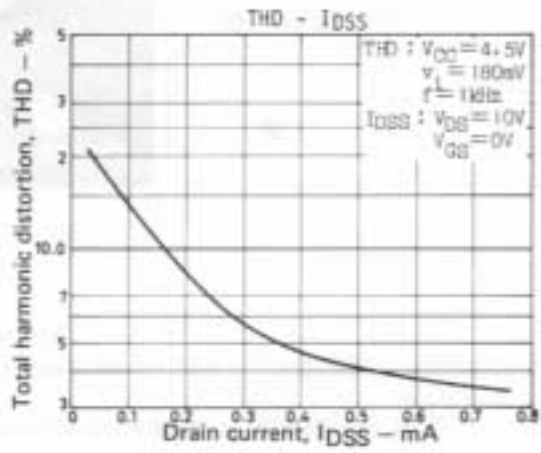
These specifications are subject to change without notice.

TOKYO SANYO ELECTRIC CO., LTD. SEMICONDUCTOR DIVISION  
15-13 6-CHOME, SOTOKANDA, CHIYODA-KU, TOKYO 100, JAPAN



Sample application circuit: 2-wire system





Information furnished by SANYO is believed to be accurate and reliable. However, no responsibility is assumed by SANYO for its use, nor for any infringements of patents or other rights of third parties which may result from its use, and no license is granted by implication or otherwise under any patent or patent rights of SANYO.