

# 2SK2162

## Audio-Frequency Power Amplifier Applications

- High breakdown voltage:  $V_{DSS} = 180\text{ V}$
- High forward transfer admittance:  $|Y_{fs}| = 0.7\text{ S (typ.)}$
- Complementary to 2SJ338

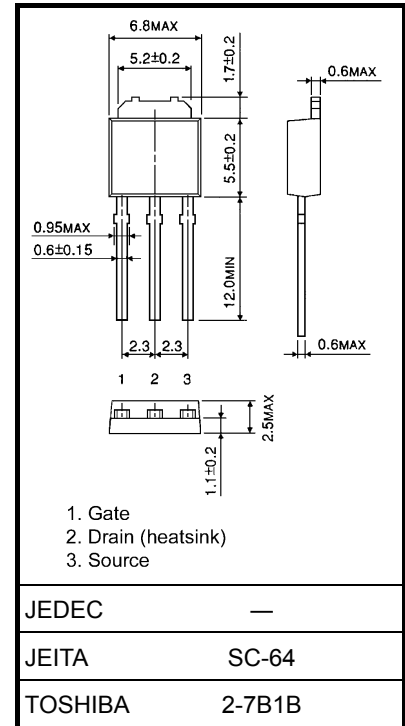
## Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

Characteristic	Symbol	Rating	Unit
Drain-source voltage	$V_{DSS}$	180	V
Gate-source voltage	$V_{GSS}$	$\pm 20$	V
Drain current (Note 1)	$I_D$	1	A
Power dissipation ( $T_c = 25^\circ\text{C}$ )	$P_D$	20	W
Channel temperature	$T_{ch}$	150	$^\circ\text{C}$
Storage temperature range	$T_{stg}$	$-55\sim 150$	$^\circ\text{C}$

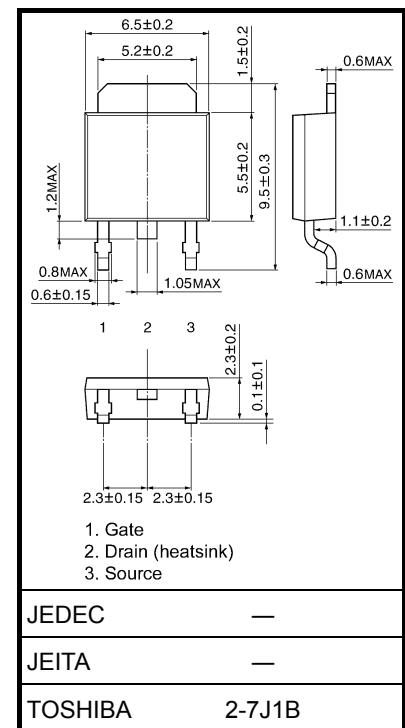
Note 1: Ensure that the channel temperature does not exceed  $150^\circ\text{C}$ .

Note 2: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.) are within the absolute maximum ratings. Please design the appropriate reliability upon reviewing the Toshiba Semiconductor Reliability Handbook ("Handling Precautions"/Derating Concept and Methods) and individual reliability data (i.e. reliability test report and estimated failure rate, etc).

Unit: mm



Weight: 0.36 g (typ.)



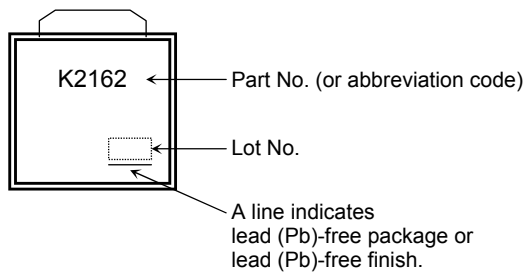
Weight: 0.36 g (typ.)

## Electrical Characteristics (Ta = 25°C)

Characteristic	Symbol	Test Condition	Min	Typ.	Max	Unit
Gate leakage current	$I_{GSS}$	$V_{DS} = 0\text{ V}, V_{GS} = \pm 20\text{ V}$	—	—	$\pm 100$	nA
Drain-source breakdown voltage	$V_{(BR)DSS}$	$I_D = 10\text{ mA}, V_{GS} = 0\text{ V}$	180	—	—	V
Gate-source cutoff current	$V_{GS(OFF)}$	$V_{DS} = 10\text{ V}, I_D = 10\text{ mA}$	1.4	—	2.8	V
Drain-source saturation voltage	$V_{DS(ON)}$	$I_D = 0.6\text{ A}, V_{GS} = 10\text{ V}$	—	1.7	3.0	V
Forward transfer admittance	$ Y_{fs} $	$V_{DS} = 10\text{ V}, I_D = 0.3\text{ A}$	—	0.7	—	S
Input capacitance	$C_{iss}$	$V_{DS} = 10\text{ V}, V_{GS} = 0\text{ V}, f = 1\text{ MHz}$	—	170	—	pF
Output capacitance	$C_{oss}$		—	45	—	pF
Reverse transfer capacitance	$C_{rss}$		—	17	—	pF

This transistor is an electrostatic-sensitive device. Handle with care.

## Marking



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20070701-EN

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