TY Semicondutor®

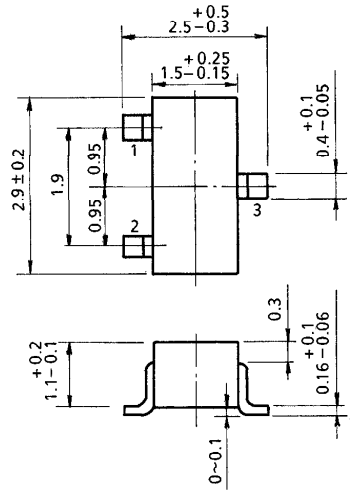
Product specification

2SJ305

HIGH SPEED SWITCHING APPLICATIONS
ANALOG APPLICATIONS

- High Input Impedance
- Low Gate Threshold Voltage. : $V_{th} = -0.5 \sim -1.5V$
- Excellent Switching Times. : $t_{on} = 0.06\mu s$ (Typ.)
  $t_{off} = 0.15\mu s$ (Typ.)
- Low Drain-Source ON Resistance. : $R_{DS(ON)} = 2.4\Omega$ (Typ.)
- Small Package.
- Complementary to 2SK2009.

Unit in mm



1. GATE
2. SOURSE
3. DRAIN

S-MINI	
JEDEC	TO-236MOD
EIAJ	SC-59
TOSHIBA	2-3F1F

Weight : 0.012g

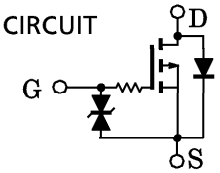
MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Drain-Source Voltage	V_{DS}	−30	V
Gate-Source Voltage	V_{GSS}	±20	V
DC Drain Current	I_D	−200	mA
Drain Power Dissipation	P_D	200	mW
Channel Temperature	T_{ch}	150	°C
Storage Temperature Range	T_{stg}	−55~150	°C

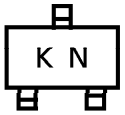
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate Leakage Current		I_{GSS}	$V_{GS} = \pm 10V$, $V_{DS} = 0$	—	—	±0.1	μA
Drain-Source Breakdown Voltage		$V_{(BR)DSS}$	$I_D = -1mA$, $V_{GS} = 0$	−30	—	—	V
Drain Cut-off Current		I_{DSS}	$V_{DS} = -30V$, $V_{GS} = 0$	—	—	−10	μA
Gate Threshould Voltage		V_{th}	$V_{DS} = -3V$, $I_D = -0.1mA$	−0.5	—	−1.5	V
Forward Transfer Admittance		$\|Y_{fs}\|$	$V_{DS} = -3V$, $I_D = -50mA$	100	—	—	mS
Drain-Source ON Resistance		$R_{DS(ON)}$	$I_D = -50mA$, $V_{GS} = -2.5V$	—	2.4	4	Ω
Input Capacitance		C_{iss}	$V_{DS} = -3V$, $V_{GS} = 0$, f = 1MHz	—	92	—	pF
Reverse Transfer Chapacitance		C_{rss}	$V_{DS} = -3V$, $V_{GS} = 0$, f = 1MHz	—	36	—	pF
Output Capacitance		C_{oss}	$V_{DS} = -3V$, $V_{GS} = 0$, f = 1MHz	—	80	—	pF
Switching Time	Turn-on Time	t_{on}	$V_{DD} = -3V$, $I_D = -10mA$, $V_{GS} = 0 \sim -2.5V$	—	0.06	—	μs
	Turn-off Time	t_{off}	$V_{DD} = -3V$, $I_D = -10mA$, $V_{GS} = 0 \sim -2.5V$	—	0.15	—	

EQUIVALENT CIRCUIT



MARKING



THIS TRANSISTOR IS ELECTROSTATIC SENSITIVE DEVICE.
PLEASE HANDLE WITH CAUTION.