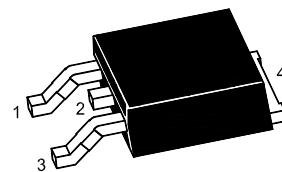


# ST 2SB1261R

## PNP Silicon Epitaxial Planar Transistor

for power switching and amplifier applications



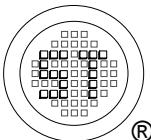
1. Base 2. Collector 3. Emitter 4. Collector  
TO-252 Plastic Package

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

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	60	V
Collector Emitter Voltage	$-V_{CEO}$	60	V
Emitter Base Voltage	$-V_{EBO}$	7	V
Collector Current	$-I_C$	3	A
Collector Current (10 ms)	$-I_{CP}$	5	A
Base Current	$-I_B$	0.5	A
Power Dissipation ( $T_a = 25^\circ\text{C}$ )	$P_{tot}$	2	W
Power Dissipation ( $T_c = 25^\circ\text{C}$ )	$P_{tot}$	10	W
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 55 to + 150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $-V_{CE} = 2\text{ V}$ , $-I_C = 0.6\text{ A}$	$h_{FE}$	100	-	200	-
	$h_{FE}$	160	-	320	-
	$h_{FE}$	200	-	400	-
	$h_{FE}$	50	-	-	-
Collector Base Cutoff Current at $-V_{CB} = 60\text{ V}$	$-I_{CBO}$	-	-	10	$\mu\text{A}$
Emitter Base Cutoff Current at $-V_{EB} = 7\text{ V}$	$-I_{EBO}$	-	-	10	$\mu\text{A}$
Collector Emitter Saturation Voltage at $-I_C = 1.5\text{ A}$ , $-I_B = 0.15\text{ A}$	$-V_{CE(sat)}$	-	-	0.3	V
Base Emitter Saturation Voltage at $-I_C = 1.5\text{ A}$ , $-I_B = 0.15\text{ A}$	$-V_{BE(sat)}$	-	-	1.2	V
Transition Frequency at $-V_{CE} = 5\text{ V}$ , $-I_C = 1.5\text{ A}$	$f_T$	-	50	-	MHz
Turn On Time at $-I_C = 1\text{ A}$ , $-I_B = I_B = 100\text{ mA}$ , $-V_{CC} = 10\text{ V}$ , $R_L = 10\Omega$	$t_{on}$	-	-	0.5	$\mu\text{s}$
Storage Time at $-I_C = 1\text{ A}$ , $-I_B = I_B = 100\text{ mA}$ , $-V_{CC} = 10\text{ V}$ , $R_L = 10\Omega$	$t_{stg}$	-	-	2	$\mu\text{s}$
Fall Time at $-I_C = 1\text{ A}$ , $-I_B = I_B = 100\text{ mA}$ , $-V_{CC} = 10\text{ V}$ , $R_L = 10\Omega$	$t_f$	-	-	0.5	$\mu\text{s}$

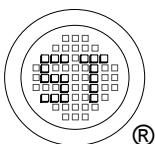
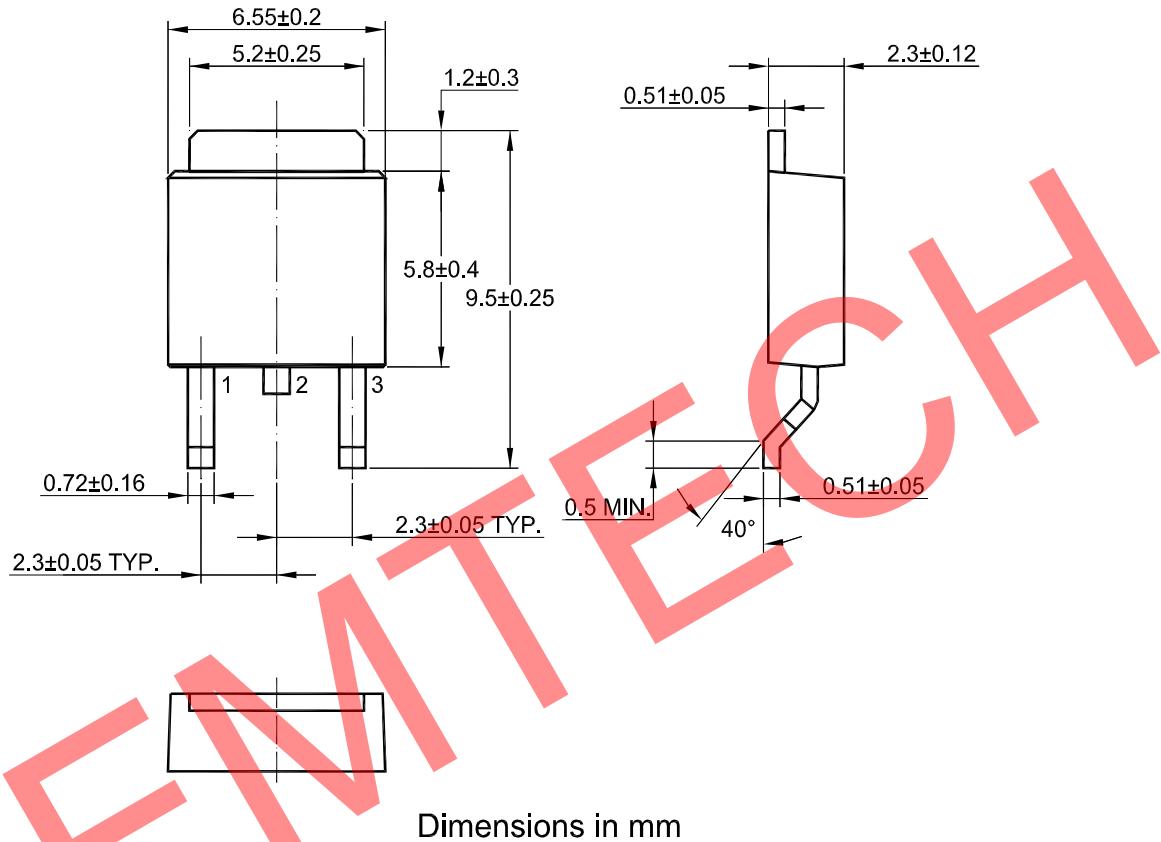


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Dated : 23/09/2009

## TO-252 PACKAGE OUTLINE



**SEMTECH ELECTRONICS LTD.**  
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