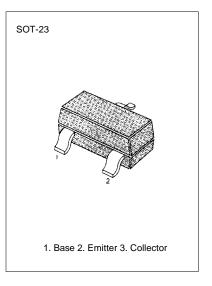
### **GENERAL PURPOSE TRANSISTOR**

## ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=25°C)

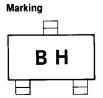
Characteristic	Symbol	Rating	Unit
Collector-Base Voltage Collector-Emitter Voltage Emitter-Base Voltage Collector Current Collector Dissipation Storage Temperature	V <sub>CBO</sub> V <sub>CEO</sub> V <sub>EBO</sub> I <sub>C</sub> P <sub>C</sub> T <sub>STG</sub>	-45 -45 -5 -100 350 150	∨ ∨ ∨ mA mW °C

<sup>•</sup> Refer to KS5086 for graphs



# ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C)

Characteristic	Symbol	Test Conditions	Min	Max	Unit
Collector-Emitter Breakdown Voltage	BV <sub>CEO</sub>	$I_C = -2mA$ , $I_B = 0$	-45		V
Emitter-Base Breakdown Voltage Collector Cut-off Current	BV <sub>EBO</sub> I <sub>CES</sub>	$I_E = -1\mu A, I_C = 0$ $V_{CE} = -32V, V_{BE} = 0$	-5	-20	V nA
DC Current Gain	h <sub>FE</sub>	V <sub>CE</sub> = -5V, I <sub>C</sub> = -10μA V <sub>CE</sub> = -5V, I <sub>C</sub> = -2mA	30 140	310	
		V <sub>CE</sub> = -1V, I <sub>C</sub> = -50mA	80		
Collector-Emitter Saturation Voltage	V <sub>CE</sub> (sat)	$I_{C}$ = -10mA, $I_{B}$ = -0.25mA $I_{C}$ = -50mA, $I_{B}$ = -1.25mA		-0.25 -0.55	V
Base-Emitter Saturation Voltage	V <sub>BE</sub> (sat)	$I_{C}$ = -10mA, $I_{B}$ = -0.25mA $I_{C}$ = -50mA, $I_{B}$ = -1.25mA	-0.6	-0.85	V
Base-Emitter On Voltage Current Gain Bandwidth Product	V <sub>BE</sub> (on) C <sub>OB</sub>	l <sub>C</sub> = -2mA, V <sub>CE</sub> = -5V V <sub>CB</sub> = -10V, I <sub>E</sub> =0 I <sub>E</sub> =1MHz	-0.68 -0.6	-1.05 -0.75 6	V V pF
Noise Figure	NF	$I_{C}$ = -0.2mA, $V_{CE}$ = -5V f=1KHz, $R_{S}$ =2K $\Omega$		6	dB
Turn On Time Turn Off Time	T <sub>ON</sub> T <sub>OFF</sub>	$\begin{array}{l} I_{C}\text{=-}10\text{mA},\ I_{B1}\text{=-}1\text{mA} \\ I_{B2}\text{=-}1\text{mA},\ V_{BB}\text{=-}3.6V \\ R_{L}\text{=}990\Omega \end{array}$		150 800	ns ns





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