

**Micro Commercial Components** 

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### 2SB1140-R 2SB1140-S

#### **Features**

• Power dissipation:  $P_{CM} = 0.5W(T_{amb}=25^{\circ}C)$ 

Collector current: I<sub>CM</sub> = -2A

Collector-base voltage: V<sub>(BR)CBO</sub> = -50V

• Operating and storage junction temperature range

 $T_J$ ,  $T_{stg}$ : -55  $^{\circ}$ C to + 150  $^{\circ}$ C

 Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1

• Halogen free available upon request by adding suffix "-HF"

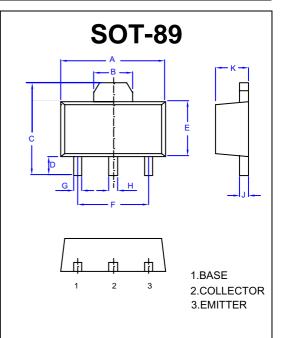
#### Electrical Characteristics $@25^{\circ}$ Unless Otherwise Specified

Symbol	Parameter	Min	Тур	Max	Unit
$V_{CEO}$	Collector-Emitter Breakdown Voltage (I <sub>C</sub> =-1000 µ A, I <sub>B</sub> =0)	-50			V
V <sub>CBO</sub>	Collector-Base Breakdown Voltage (I <sub>C</sub> =-10 µ A, I <sub>E</sub> =0)	-50			V
V <sub>EBO</sub>	Emitter-Base Voltage (I <sub>E</sub> =-10 μ A, I <sub>C</sub> =0)				V
I <sub>CBO</sub>	Collector Cut-off Current $(V_{CB}=-50V, I_{E}=0)$			-1.0	μА
I <sub>EBO</sub>	Emitter Cut-off Current (V <sub>EB</sub> =-5V, I <sub>C</sub> =0)			-1.0	μА
h <sub>FE1</sub>	DC Current Gain (V <sub>CE</sub> =-2V, I <sub>C</sub> =-0.2A)	120		340	
h <sub>FE2</sub>	DC Current Gain (V <sub>CE</sub> =-2V, I <sub>C</sub> =-1A)	60			
$V_{\text{CE(sat)}}$	Collector-Emitter Saturation Voltage (I <sub>C</sub> =-1A, I <sub>B</sub> =-50mA)			-0.3	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage (I <sub>C</sub> =-1A, I <sub>B</sub> =-50mA)			-1.2	V
f <sub>T</sub>	Transition Frequency (V <sub>CE</sub> =-10Vdc, I <sub>C</sub> =50mAdc, f=200MHz)		80		MHz
Cob	Collector output capacitance (V <sub>CB</sub> =-10V, I <sub>E</sub> =0, f=1MHz)			80	PF

#### **CLASSIFICATION OF h**

Rank	R	S	
Range	120-240	170-340	
Marking	1L		

# PNP Plastic-Encapsulate Transistors



DIMENSINS						
DIM	INCHES		MM		NOTES	
	MIN	MAX	MIN	MAX		
Α	.173	.181	4.39	4.60		
В	.063	.071	1.60	1.80		
С	.154	.165	3.91	4.25		
D	.031	.039	0.80	1.00		
E	.092	.100	2.34	2.54		
F	.118		3.00		TYP	
G	.013	.019	0.33	0.48		
Н	.015	.021	0.38	0.53		
J	.015	.016	0.38	0.41		
K	.055	.063	1.40	1.60		



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#### **Ordering Information:**

Device	Packing
Part Number-TP	Tape&Reel 1Kpcs/Reel

Note: Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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