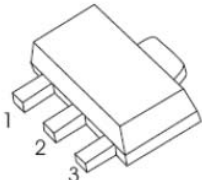



TRANSISTOR (NPN)		SOT-89-3L Plastic-Encapsulate Transistors				
<b>FEATURES</b> Power dissipation		<b>SOT-89-3L</b> 1. BASE 2. COLLECTOR 3. EMITTER 				
<b>MAXIMUM RATINGS (T<sub>a</sub>=25°C unless otherwise noted)</b>						
Symbol	Parameter	Value	Unit			
V <sub>CBO</sub>	Collector-Base Voltage	40	V			
V <sub>CEO</sub>	Collector-Emitter Voltage	30	V			
V <sub>EBO</sub>	Emitter-Base Voltage	6	V			
I <sub>C</sub>	Collector Current -Continuous	3	A			
P <sub>C</sub>	Collector Power Dissipation	0.5	W			
R <sub>θJA</sub>	Thermal Resistance from  Junction to Ambient	25€	°C/W			
T <sub>J</sub>	Junction Temperature	150	°C			
T <sub>stg</sub>	Storage Temperature	-55~150	°C			
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> = 100µA, I <sub>E</sub> =0	40			V
Collector-emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> = 10mA, I <sub>B</sub> =0	30			V
Emitter-base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> = 100µA, I <sub>C</sub> =0	6			V
Collector cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> = 40V, I <sub>E</sub> =0			1	µA
Collector cut-off current	I <sub>CEO</sub>	V <sub>CE</sub> = 30V, I <sub>B</sub> =0			10	µA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> = 6V, I <sub>C</sub> =0			1	µA
DC current gain	h <sub>FE(1)</sub>	V <sub>CE</sub> =2V, I <sub>C</sub> = 1A	60		400	
	h <sub>FE(2)</sub>	V <sub>CE</sub> =2V, I <sub>C</sub> = 100mA	32			
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = 2A, I <sub>B</sub> = 0.2 A			0.5	V
Base-emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = 2A, I <sub>B</sub> = 0.2 A			1.5	V
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> = 5V , I <sub>C</sub> =0.1A f =10MHZ	50			MHZ
<b>CLASSIFICATION OF h<sub>FE(1)</sub></b>						
Rank	R	O	Y	GR		
Range	60-120	100-200	160-320	200-400		

**Typical Characteristics**

