

SOT-89-3L Plastic-Encapsulate Transistors

BSR43 TRANSISTOR (NPN)

FEATURES

- Low Voltage
- High Current
- Complement to BSR33

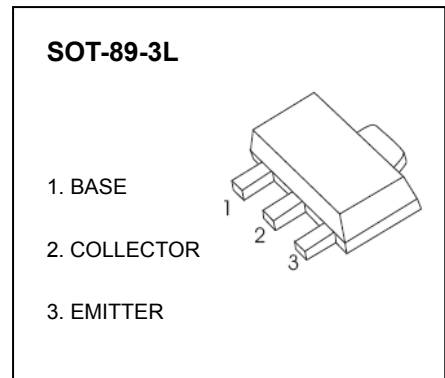
APPLICATIONS

- Thick and Thin-Film Circuits
- Telephony and General Industrial Applications

MARKING:AR4

MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	90	V
V _{CEO}	Collector-Emitter Voltage	80	V
V _{EBO}	Emitter-Base Voltage	5	V
I _C	Collector Current	1	A
P _C	Collector Power Dissipation	500	mW
R _{θJA}	Thermal Resistance From Junction To Ambient	250	°C/W
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55~+150	°C



ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =100μA, I _E =0	90			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =1mA, I _B =0	80			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =100μA, I _C =0	5			V
Collector cut-off current	I _{CB0}	V _{CB} =60V, I _E =0			100	nA
Emitter cut-off current	I _{EBO}	V _{EB} =5V, I _C =0			100	nA
DC current gain	h _{FE(1)} *	V _{CE} =5V, I _C =0.1mA	30			
	h _{FE(2)} *	V _{CE} =5V, I _C =100mA	100		300	
	h _{FE(3)} *	V _{CE} =5V, I _C =500mA	50			
Collector-emitter saturation voltage	V _{CE(sat)} *	I _C =150mA, I _B =15mA			0.25	V
		I _C =500mA, I _B =50mA			0.5	V
Base-emitter saturation voltage	V _{BE(sat)} *	I _C =150mA, I _B =15mA			1	V
		I _C =500mA, I _B =50mA			1.2	V
Transition frequency	f _T	V _{CE} =10V, I _C =50mA, f=100MHz	100			MHz
Collector output capacitance	C _{ob}	V _{CB} =10V, I _E =0, f=1MHz			12	pF
Emitter input capacitance	C _{ib}	V _{BE} =0.5V, I _C =0, f=1MHz			90	pF

*Pulse test