

isc Silicon NPN Transistor

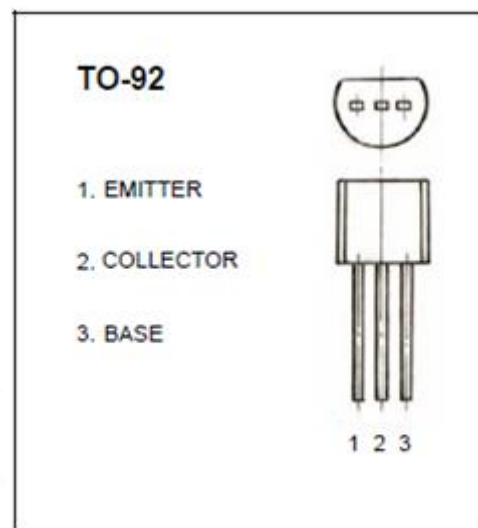
2SC3198

DESCRIPTION

- High DC Current Gain- $h_{FE}=70-700@I_C = 2mA$
- Excellent h_{FE} Linearity
- Excellent Safe Operating Area
- Low Noise
- Complement to Type 2SA1266
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Low Frequency Amplifiers.
- Low Noise Amplifiers.


ABSOLUTE MAXIMUM RATINGS($T_a=25^{\circ}C$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	150	mA
P_C	Collector Power Dissipation @ $T_C=25^{\circ}C$	400	mW
T_J	Junction Temperature	125	$^{\circ}C$
T_{stg}	Storage Temperature Range	-55~125	$^{\circ}C$

isc Silicon NPN Transistor**2SC3198****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 100mA ; I _B = 10mA			0.25	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 100mA ; I _B = 10mA			1.0	V
I _{CBO}	Emitter Cutoff Current	V _{CB} = 60V; I _E = 0			0.1	μ A
I _{EBO}	Collector Cutoff Current	V _{EB} = 5V; I _C = 0			0.1	μ A
h _{FE-1}	DC Current Gain	I _C = 2mA ; V _{CE} = 6V	70		700	
h _{FE-2}	DC Current Gain	I _C = 150mA ; V _{CE} = 6V	25			
f _T	Current-Gain—Bandwidth Product	I _C = 1mA; V _{CE} = 10V;	80			MHz
C _{ob}	Collector Output Capacitance	V _{CB} =10V; I _E =0; f=1MHz			3.0	pF
R _{bb'}	Base Intrinsic Resistance	V _{CE} =10V, I _E =-1mA; f=30MHz		50		Ω
NF	Noise Figure	V _{CE} =6V, I _C =0.1mA; f=1KHz, R _G =10K Ω			10	dB

◆ h_{FE-1}Classifications

O	Y	GR	BL
70-140	120-400	200-400	350-700