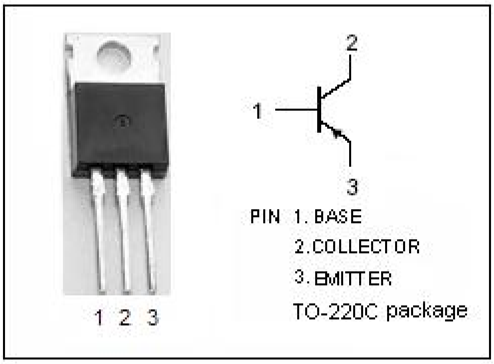
isc Silicon PNP Power Transistor 2N6109

DESCRIPTION

- DC Current Gain-
  : h_{FE} = 30-150@ I_C= -2.5A
- Collector-Emitter Sustaining Voltage-
  : $V_{CEO(SUS)}$= -50V(Min)
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



PIN 1. BASE
2.COLLECTOR
3. EMITTER

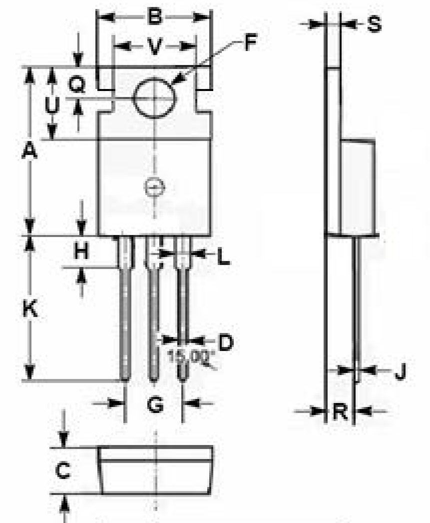
TO-220C package

APPLICATIONS

- Designed for use in general-purpose amplifier and switching applications

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

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-Continuous	-7	A
I_{CM}	Collector Current-Peak	-10	A
I_B	Base Current	-3	A
P_C	Collector Power Dissipation @ T_C=25℃	40	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-65~150	℃



DIM	mm MIN	mm MAX
A	15.50	15.90
B	9.80	10.20
C	4.20	4.50
D	0.70	0.90
F	3.40	3.70
G	4.98	5.18
H	2.68	2.90
J	0.44	0.60
K	12.80	13.40
L	1.20	1.45
Q	2.70	2.90
R	2.30	2.70
S	1.29	1.35
U	6.45	6.65
V	8.66	8.86

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance, Junction to Case	3.125	℃/W

ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= -50mA ;I_B= 0	-50		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= -7A; I_B= -3A		-3.5	V
$V_{BE(on)}$	Base-Emitter On Voltage	I_C= -7A ; V_{CE}= -4V		-3.0	V
I_{CEX}	Collector Cutoff Current	V_{CE}= -60V; $V_{BE(off)}$= -1.5V V_{CE}= -50V; $V_{BE(off)}$= -1.5V; T_C= 150℃		-0.1 -2.0	mA
I_{CEO}	Collector Cutoff Current	V_{CE}= -40V;I_B= 0		-1.0	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= -5V; I_C= 0		-1.0	mA
h_{FE-1}	DC Current Gain	I_C= -2.5A ; V_{CE}= -4V	30	150	
h_{FE-2}	DC Current Gain	I_C= -7A ; V_{CE}= -4V	2.3		
C_{OB}	Output Capacitance	I_E= 0 ; V_{CB}= -10V; f_{test}= 1MHz		250	pF
f_T	Current-Gain—Bandwidth Product	I_C= -0.5A ; V_{CE}= -4V; f_{test}= 1MHz	10		MHz