

Silicon NPN Power Transistor

2SC3284

DESCRIPTION

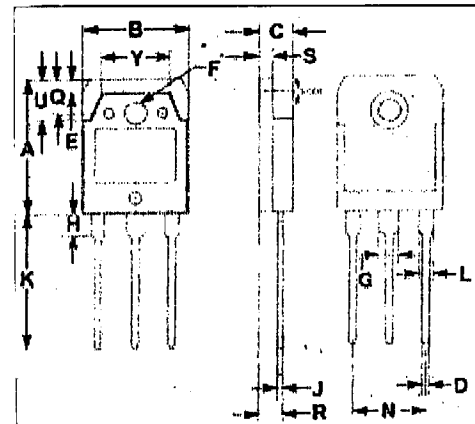
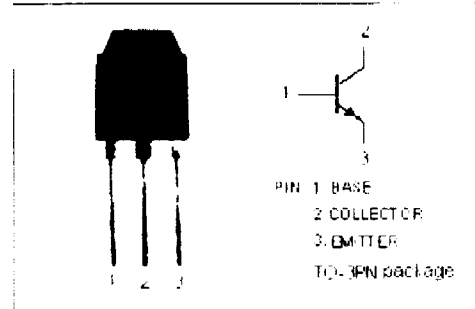
- High Collector-Emitter Breakdown Voltage-
 $V_{(BR)CEO} = 150V(\text{Min})$
- Good Linearity of h_{FE}
- Complement to Type 2SA1303

APPLICATIONS

- Designed for audio and general purpose applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CB0}	Collector-Base Voltage	150	V
V_{CE0}	Collector-Emitter Voltage	150	V
V_{EB0}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	14	A
I_B	Base Current-Continuous	3	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	125	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55-150	$^\circ\text{C}$



mm		
DIM	MIN	MAX
A	19.90	20.10
B	15.38	15.42
C	4.75	4.85
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.98	3.02
H	3.20	3.40
J	0.595	0.605
K	19.95	20.25
L	1.98	2.02
N	10.89	10.91
U	4.95	5.05
R	3.35	3.45
S	1.995	2.005
T	5.90	6.10
Y	9.90	10.10



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Quality Semi-Conductors

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ELECTRICAL CHARACTERISTICS

$T_c=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{BR(CEO)}$	Collector-Emitter Breakdown Voltage	$I_C = 25\text{mA}$; $I_E = 0$	150			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 5\text{A}$; $I_E = 0.5\text{A}$			2.0	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = 150\text{V}$; $I_E = 0$			100	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = 5\text{V}$; $I_C = 0$			100	μA
h_{FE}	DC Current Gain	$I_C = 5\text{A}$; $V_{CE} = 4\text{V}$	50		180	
C_{out}	Output Capacitance	$I_C = 0$; $V_{CE} = 10\text{V}$; $f = 1.0\text{MHz}$		200		pF
f	Current-Gain—Bandwidth Product	$I_C = -2\text{A}$; $V_{CE} = 12\text{V}$		60		MHz

Switching Times

t_{on}	Turn-on Time			0.2		μs
t_{stg}	Storage Time	$I_C = 5\text{A}$; $R_L = 12\Omega$ $I_{B1} = -I_{B2} = 0.5\text{A}$; $V_{CE} = 60\text{V}$		1.5		μs
t_f	Fall Time			0.35		μs

◆ h_{FE} Classifications

O	P	Y
50-100	70-140	90-180