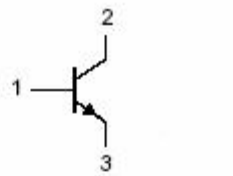
isc Silicon NPN Power Transistors — 2SC2085

DESCRIPTION

- Collector-Base Breakdown Voltage-
  : $V_{(BR)CBO}$= 300V(Min.)
- Large collector power dissipation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



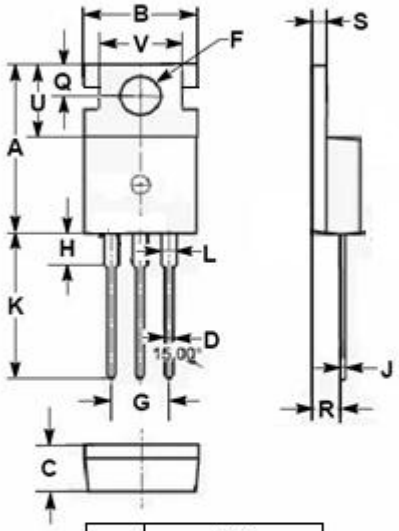
PIN 1. BASE
2.COLLECTOR
3. EMITTER
TO-220C package

APPLICATIONS

- 1W output in class-A operation
- Line-operated AF amplifier chrominance output

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	300	V
V_{CER}	Collector-Emitter Voltage	300	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	100	mA
I_{CM}	Collector Current-Peak	150	mA
P_C	Collector Power Dissipation @ T_C=25℃	10	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



DIM	mm MIN	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

isc Silicon NPN Power Transistors 2SC2085

ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V_{CER}	Collector-Emitter Voltage	I_C= 5mA; R_{BE}= 3kΩ	300			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E= 0.1mA; I_C= 0	5			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 100mA; I_B= 10mA			5.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	I_C=50mA; V_{CE}= 10V			1.2	V
I_{CEO}	Collector Cutoff Current	V_{CE}= 300V; I_B= 0			20	μA
h_{FE-1}	DC Current Gain	I_C=10mA; V_{CE}= 10V	30			
h_{FE-2}	DC Current Gain	I_C=50mA; V_{CE}= 10V	30		150	
C_{OB}	Output Capacitance	I_E= 0; V_{CB}= 30V; f= 1.0MHz		8		pF
f_T	Current-Gain—Bandwidth Product	I_E= -20mA;V_{CB}= 30V, f= 200MHz		55		MHz

◆ **h_{FE-2} Classifications**

P	Q	R
30-60	50-100	80-150

Notice：

ISC reserves the rights to make changes of the content herein the datasheet at any time without notification. The information contained herein is presented only as a guide for the applications of our products.

ISC products are intended for usage in general electronic equipment. The products are not designed for use in equipment which require specialized quality and/or reliability, or in equipment which could have applications in hazardous environments, aerospace industry, or medical field. Please contact us if you intend our products to be used in these special applications.

ISC makes no warranty or guarantee regarding the suitability of its products for any particular purpose, nor does ISC assume any liability arising from the application or use of any products, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages.