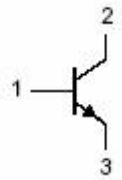
isc Silicon NPN Power Transistors — 2SC3591

DESCRIPTION

- Collector-Emitter Breakdown Voltage-
  : $V_{(BR)CEO}$= 200V(Min)
- Fast Switching Speed
- Low Saturation Voltage
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

1 2 3



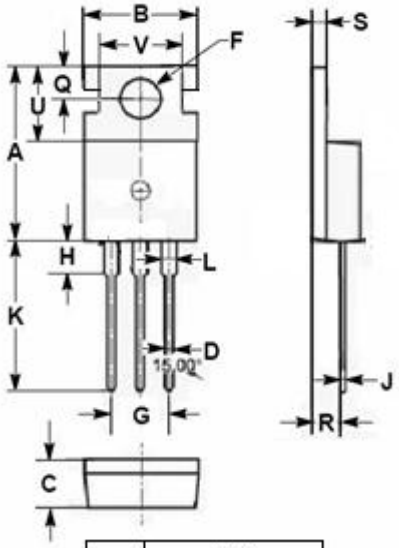
PIN 1. BASE
2.COLLECTOR
3. EMITTER
TO-220C package

APPLICATIONS

- Designed for high definition CRT display horizontal deflection output applications.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	400	V
V_{CEO}	Collector-Emitter Voltage	200	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	7	A
I_{CM}	Collector Current-Peak	12	A
I_B	Base Current-Continuous	4	A
P_T	Total Power Dissipation @ T_C=25℃	50	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 2SC3591

ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	I_C= 1mA; I_E= 0	400			V
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= 1mA; R_{BE}= ∞	200			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E= 1m A; I_C= 0	6			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 5A; I_B= 0.5A			0.8	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 5A; I_B= 0.5A			1.5	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 250V; I_E= 0			100	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C= 0			100	μA
h_{FE-1}	DC Current Gain	I_C= 1A; V_{CE}= 1V	15			
h_{FE-2}	DC Current Gain	I_C= 5A; V_{CE}= 1V	10		50	
f_T	Current-Gain—Bandwidth Product	I_C= 0.5A; V_{CE}= 10V		40		MHz
t_f	Fall Time	I_C= 5A, I_{B1}= -I_{B2}= 0.5A			0.3	μs