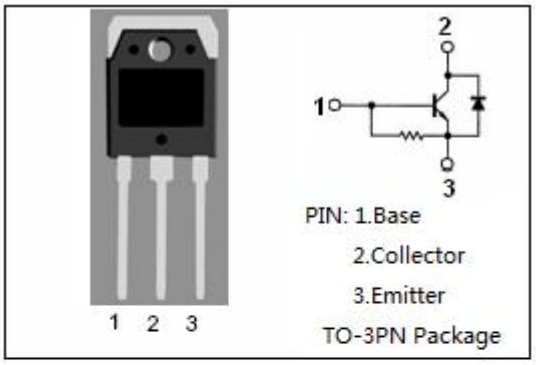
isc Silicon NPN Power Transistor 2SC4294

DESCRIPTION

- High Breakdown Voltage-
  : $V_{(BR)CBO}$= 1500V(Min)
- High Switching Speed
- High Reliability
- Built-in Damper Diode
- Good Linearity of h_{FE}
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

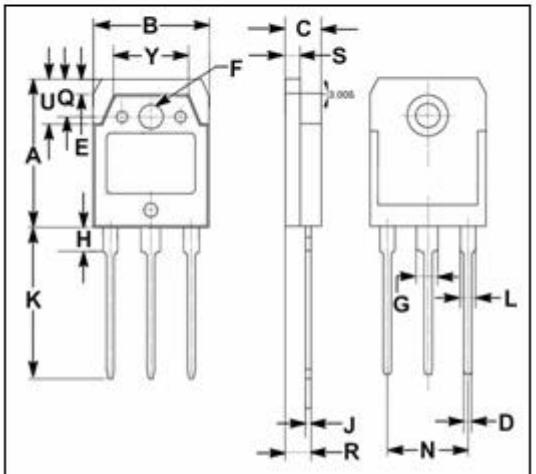


APPLICATIONS

- Ultrahigh-definition color display horizontal deflection output applications

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	1500	V
V_{CEO}	Collector-Emitter Voltage	800	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	6	A
I_{CP}	Collector Current-Peak	16	A
P_C	Collector Power Dissipation @ T_a=25℃	3.0	W
	Collector Power Dissipation @ T_C=25℃	50	
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



DIM	mm MIN	mm MAX
A	19.60	20.30
B	15.50	15.70
C	4.70	4.90
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.90	3.20
H	3.20	3.40
J	0.595	0.605
K	19.80	20.70
L	1.90	2.20
N	10.89	10.91
Q	4.90	5.10
R	3.35	3.45
S	1.995	2.100
U	5.90	6.20
Y	9.90	10.10

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= 0.1A; I_B= 0	800			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 5A; I_B= 1.2A			5.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 5A; I_B= 1.2A			1.5	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 800V; I_E= 0			10	μA
I_{CES}	Collector Cutoff Current	V_{CE}= 1500V; R_{BE}= 0			1.0	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 4V; I_C= 0	40		130	mA
h_{FE-1}	DC current gain	I_C= 1A; V_{CE}= 5V	8			
h_{FE-2}	DC current gain	I_C= 5A; V_{CE}= 5V	4		6	
V_{ECF}	C-E Diode Forward Voltage	I_F= 6A			2.0	V
Switching times						
t_{stg}	Storage Time	I_C= 5A, I_{B1}= 1A; I_{B2}= -2A; V_{CC}= 200V			3.0	μs
t_f	Fall Time				0.3	μs