Silicon NPN Power Transistor 2SC5143

DESCRIPTION

· Collector-Emitter Breakdown Voltage

-$V_{(BR)CEO}$= 700V(Min)

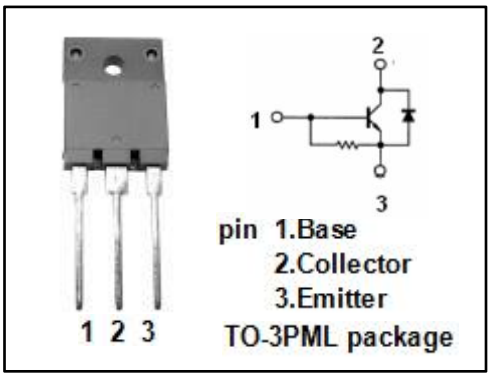
· Collector-Emitter Saturation Voltage

-$V_{CE(sat)}$:3.0V(Max) @I_C= 6.0A

APPLICATIONS

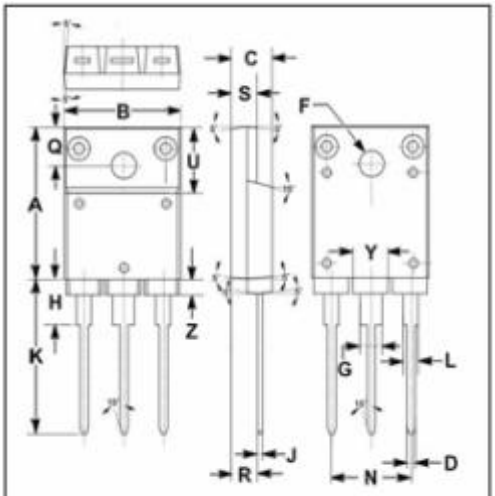
· Horizontal deflection output for high resolution display,colorTV

· High speed switching applications



ABSOLUTE MAXIMUM RATINGS(T_C=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	1400	V
V_{CEO}	Collector-Emitter Voltage	700	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	10	A
I_{CP}	Collector Current-Pulse	20	A
I_B	Base Current	5	A
P_C	Total Power Dissipation	50	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



DIM	mm MIN	MAX
A	19.90	20.10
B	15.75	16.10
C	5.50	5.70
D	0.90	1.10
F	3.30	3.50
G	2.90	3.20
H	5.90	6.10
J	0.595	0.70
K	21.10	22.50
L	1.90	2.25
N	10.80	11.00
Q	4.90	5.10
R	3.75	3.95
S	3.20	3.60
U	9.90	10.10
Y	4.20	4.90
Z	1.90	2.10

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ELECTRICAL CHARACTERISTICS （T_C=25℃ unless otherwise specified）

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= 10mA, I_B= 0	700	--	--	V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E= 400mA, I_C= 0	5.0	--	--	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 1400V,I_E=0	--	--	1.0	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}=5V,I_C=0	--	--	250	mA
h_{FE}	DC Current Gain	I_C= 1A, V_{CE}= 5V	8	--	25	--
		I_C= 6A, V_{CE}= 5V	4	--	8.5	--
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 6A, I_B= 1.5A	--	--	3.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 6A, I_B= 1.5A	--	--	1.2	V

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