

isc Silicon NPN Power Transistor

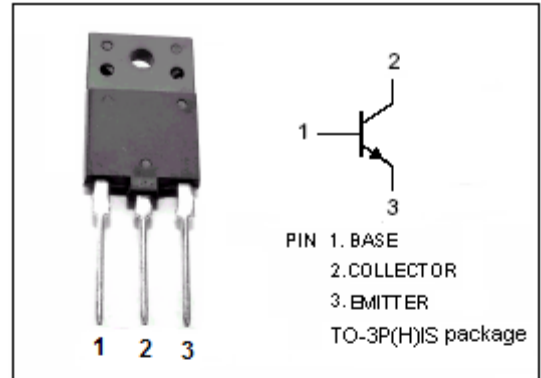
2SC5407

DESCRIPTION

- High Breakdown Voltage-
: $V_{CBO} = 1700V$ (Min)
- High Switching Speed
- Wide Area of Safe Operation

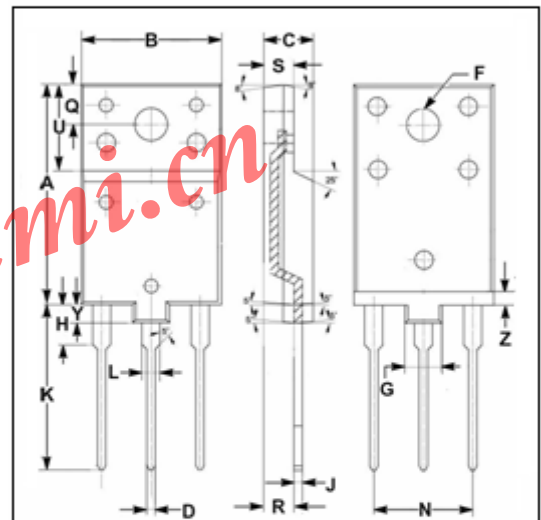
APPLICATIONS

- Designed for horizontal deflection output applications.



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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	1700	V
V_{CES}	Collector-Emitter Voltage	1700	V
V_{CEO}	Collector-Emitter Voltage	600	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current- Continuous	15	A
I_{CM}	Collector Current- Peak	20	A
I_B	Base Current- Continuous	8	A
P_C	Collector Power Dissipation @ $T_C=25^{\circ}C$	100	W
	Collector Power Dissipation @ $T_a=25^{\circ}C$	3	
T_J	Junction Temperature	150	$^{\circ}C$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}C$



DIM	mm	
	MIN	MAX
A	24.30	24.70
B	15.20	15.80
C	5.20	5.80
D	0.65	0.85
F	3.30	3.90
G	3.90	4.10
H	4.30	4.70
J	0.80	1.00
K	18.30	18.70
L	1.90	2.10
N	10.70	11.10
Q	4.40	4.60
R	3.30	3.70
S	3.20	3.40
U	9.50	9.70
Y	1.90	2.10
Z	1.40	1.60

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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=7.5\text{A}; I_B=1.88\text{A}$			3.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=7.5\text{A}; I_B=1.88\text{A}$			1.5	V
I_{CBO}	Collector Cutoff Current	$V_{CB}=1000\text{V}; I_E=0$ $V_{CB}=1700\text{V}; I_E=0$			50 1.0	μA mA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=5\text{V}; I_C=0$			50	μA
h_{FE}	DC Current Gain	$I_C=7.5\text{A}; V_{CE}=5\text{V}$	6		14	
f_T	Current-Gain—Bandwidth Product	$I_C=0.5\text{A}; V_{CE}=10\text{V}$		3		MHz

Switching Times

t_{stg}	Storage Time	$I_C=8\text{A}; I_{B1}=2\text{A}; I_{B2}=-4\text{A}$			4.0	μs
t_f	Fall Time				0.3	μs