

isc Silicon NPN Power Transistor

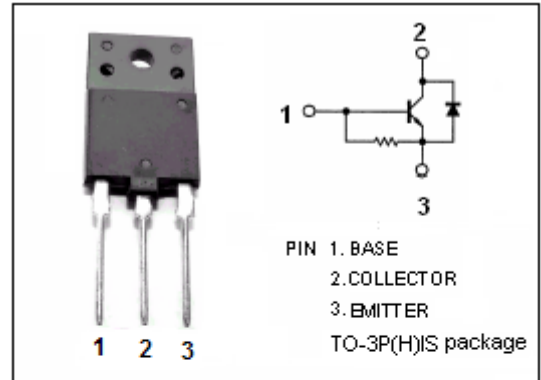
2SC5517

DESCRIPTION

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

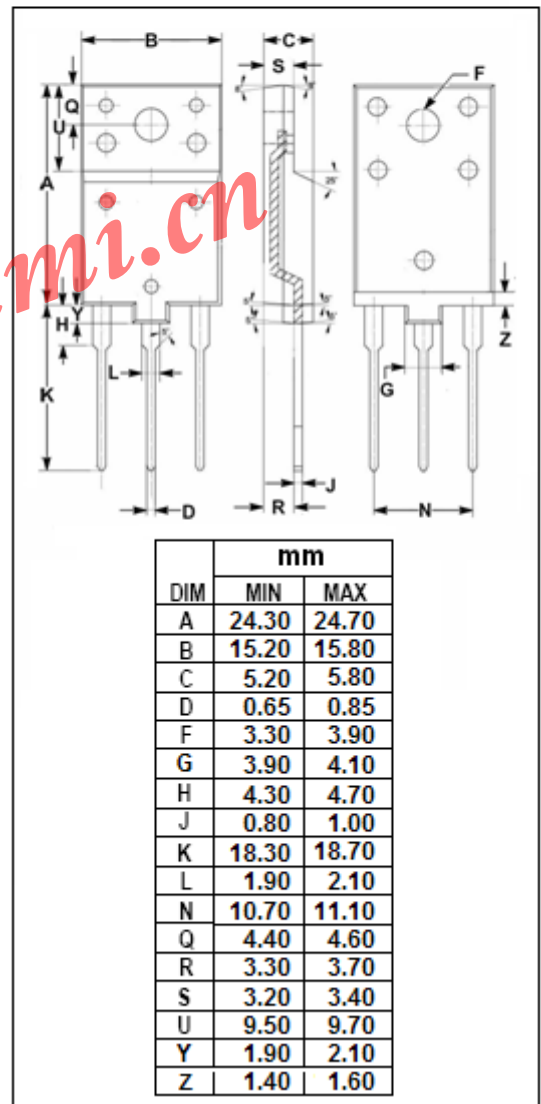
APPLICATIONS

- 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_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current- Continuous	6	A
I_{CM}	Collector Current- Peak	12	A
I_B	Base Current- Continuous	3	A
P_C	Collector Power Dissipation @ $T_a=25^{\circ}C$	3	W
	Collector Power Dissipation @ $T_c=25^{\circ}C$	40	
T_J	Junction Temperature	150	$^{\circ}C$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}C$



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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E=500\text{mA}; I_C=0$	7			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=4.5\text{A}; I_B=0.9\text{A}$			5.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=4.5\text{A}; I_B=0.9\text{A}$			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
h_{FE}	DC Current Gain	$I_C=4.5\text{A}; V_{CE}=5\text{V}$	5		9	
f_T	Current-Gain—Bandwidth Product	$I_C=0.1\text{A}; V_{CE}=10\text{V}$		3		MHz
V_{ECF}	C-E Diode Forward Voltage	$I_F=4.5\text{A}$			2.0	V

Switching Times

t_{stg}	Storage Time	$I_C=4.5\text{A}; I_{B1}=0.9\text{A}; I_{B2}=-1.8\text{A}$			5.0	μs
t_f	Fall Time				0.5	μs