

**isc Silicon NPN Power Transistor**

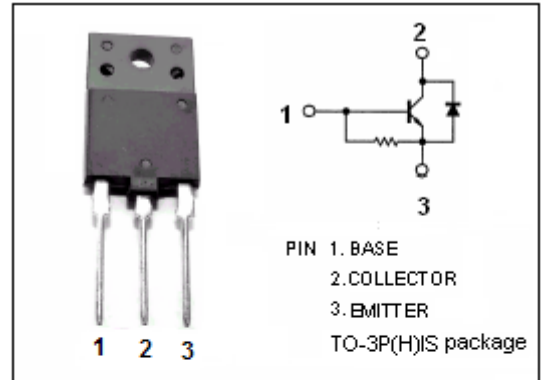
**2SC5517**

**DESCRIPTION**

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

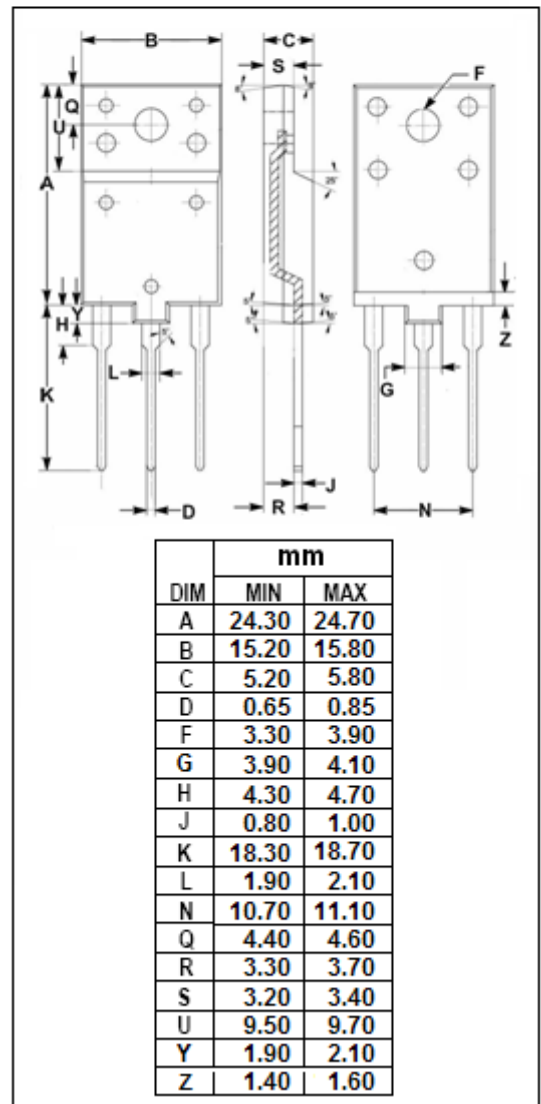
**APPLICATIONS**

- 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	$^{\circ}C$



**isc Silicon NPN Power Transistor****2SC5517****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	$\mu\text{A}$ 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	$\mu\text{s}$
$t_f$	Fall Time				0.5	$\mu\text{s}$