

**isc Silicon NPN Power Transistor****2SD517****DESCRIPTION**

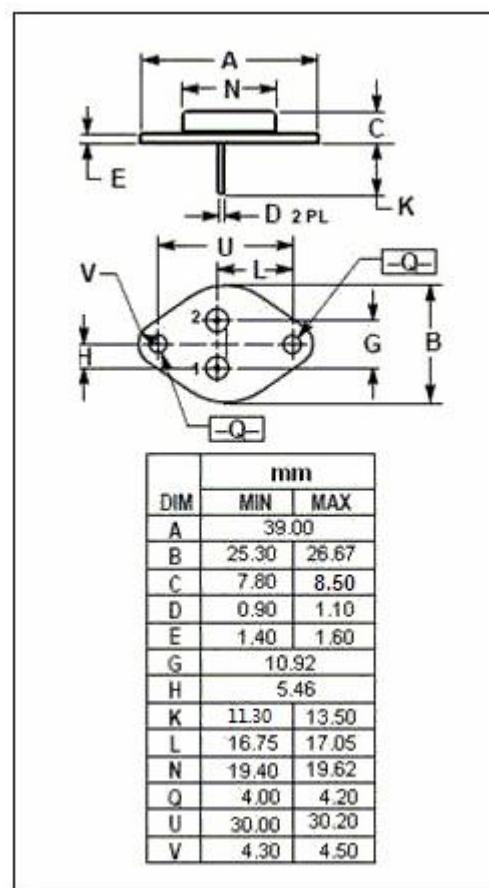
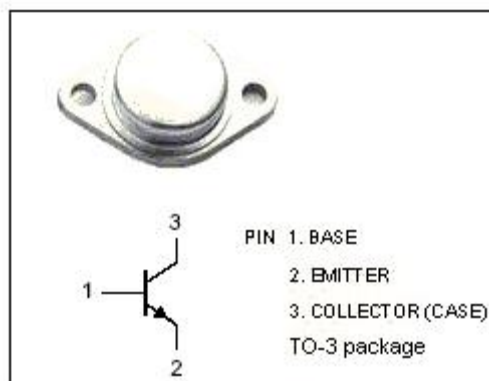
- Collector-Emitter Sustaining Voltage-  
:  $V_{CEO(SUS)} = 700V(\text{Min})$
- High Switching Speed
- Wide Area of Safe Operation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Designed for use in large screen color deflection circuits .

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CEX}$	Collector-Emitter Voltage	1500	V
$V_{CEO}$	Collector-Emitter Voltage	700	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current-Continuous	3	A
$I_{CM}$	Collector Current-Peak	5	A
$P_C$	Collector Power Dissipation @ $T_C=90^\circ\text{C}$	16	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature	-65~150	$^\circ\text{C}$





**isc Silicon NPN Power Transistor****2SD517****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEQ(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C = 30\text{mA}; I_B = 0$	700			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 3.0\text{A}; I_B = 1\text{A}$			1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = 3.0\text{A}; I_B = 1\text{A}$			1.5	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB} = 1500\text{V}; I_E = 0$			0.5	mA
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = 5.0\text{V}; I_C = 0$			0.1	mA
$h_{FE}$	DC Current Gain	$I_C = 1\text{A}; V_{CE} = 5\text{V}$	8			
$f_T$	Current-Gain—Bandwidth Product	$I_C = 0.5\text{A}; V_{CE} = 10\text{V}; f_{test} = 1\text{MHz}$		5		MHz

**Switching Times**

$t_s$	Storage Time	$I_C = 3\text{A}; I_{B1} = I_{B2} = 1.0\text{A}$			8.0	$\mu\text{s}$
$t_f$	Fall Time				0.9	$\mu\text{s}$

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