

isc Silicon NPN Power Transistor

2SD1171

DESCRIPTION

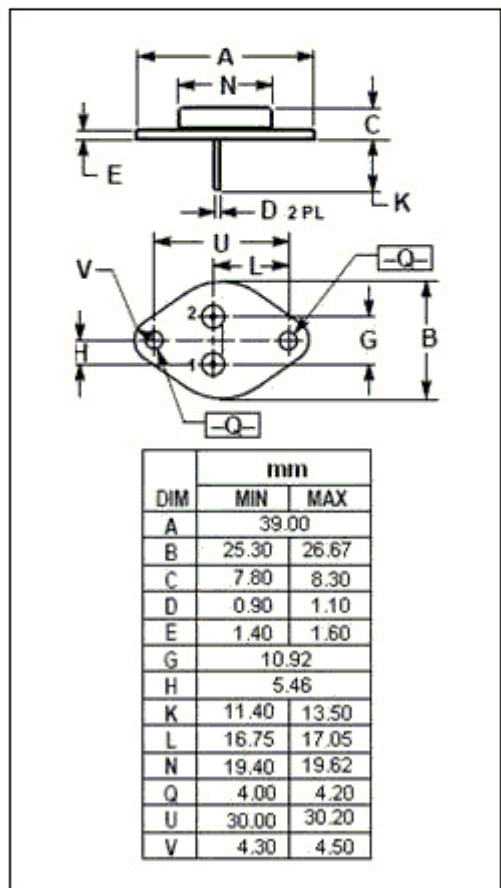
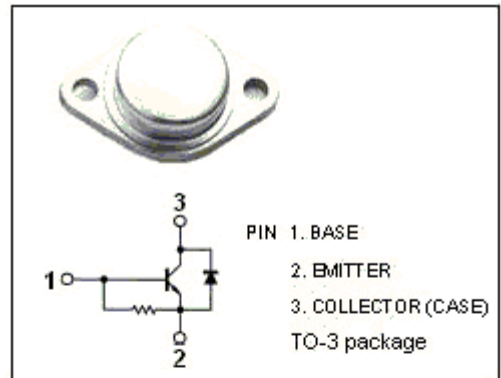
- High Breakdown Voltage-
: $V_{CBO} = 1500V$ (Min)
- High Power Dissipation
- Wide Area of Safe Operation

APPLICATIONS

- Designed for line-operated horizontal deflection output applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	1500	V
V_{CES}	Collector-Emitter Voltage	1500	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current- Continuous	3	A
I_{CP}	Collector Current-Pulse	4.5	A
P_C	Collector Power Dissipation @ $T_c \leq 90^{\circ}C$	50	W
T_J	Junction Temperature	130	$^{\circ}C$
T_{stg}	Storage Temperature Range	-65~130	$^{\circ}C$



isc Silicon NPN Power Transistor

2SD1171

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	$I_E=500\text{mA}; I_C=0$	5			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=2\text{A}; I_B=0.75\text{A}$			4.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=2\text{A}; I_B=0.75\text{A}$			1.5	V
I_{CBO}	Collector Cutoff Current	$V_{CB}=750\text{V}; I_E=0$			50	μA
		$V_{CB}=1500\text{V}; I_E=0$			1	mA
h_{FE}	DC Current Gain	$I_C=2\text{A}; V_{CE}=10\text{V}$	4		15	
V_{ECF}	C-E Diode Forward Voltage	$I_F=4\text{A}$			2.5	V
t_f	Fall Time	$I_C=2\text{A}, I_{Bend}=0.75\text{A}, L_B=5\mu\text{H}$			0.8	μs
t_{stg}	Storage Time				10	μs