

isc Silicon NPN Power Transistor

2SD1300

DESCRIPTION

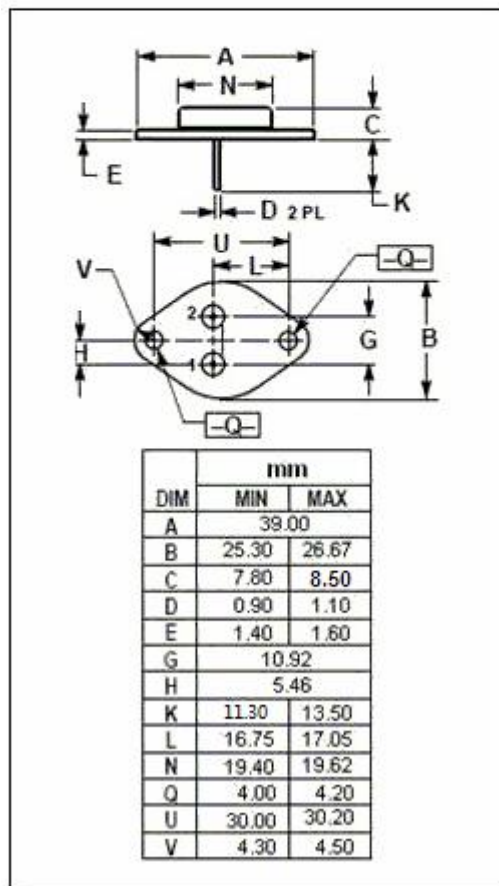
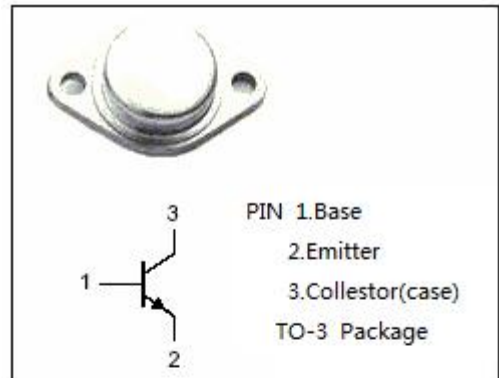
- High Collector-Base Breakdown Voltage-
: $V_{(BR)CBO} = 1500V$ (Min.)
- Low Collector Saturation Voltage-
- High Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for color TV horizontal output applications.

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

SYMBOL	PARAMETER	MAX	UNIT
V_{CBO}	Collector-Base Voltage	1500	V
V_{CEO}	Collector-Emitter Voltage	600	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	3.0	A
I_E	Emitter Current-Continuous	3.0	A
P_C	Collector Power Dissipation @ $T_c=25^\circ C$	50	W
T_j	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature Range	-65~150	$^\circ C$



isc Silicon NPN Power Transistor**2SD1300****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	$I_C= 3A; I_B= 0.8A$			5.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C= 3A; I_B= 0.8A$			1.5	V
I_{CBO}	Collector Cutoff Current	$V_{CB}= 1000V; I_E= 0$			10	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}= 5V; I_C= 0$			1.0	mA
h_{FE}	DC Current Gain	$I_C= 0.5A; V_{CE}= 5V$	8			
C_{OB}	Output Capacitance	$I_E= 0; V_{CB}= 10V; f_{test}= 1.0\text{MHz}$		95		pF
f_T	Current-Gain—Bandwidth Product	$I_C= 0.1A; V_{CE}= 10V$		3		MHz
t_f	Fall Time	$I_{CP}= 3A; I_{B1(end)}= 0.8A$			1.0	μs

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