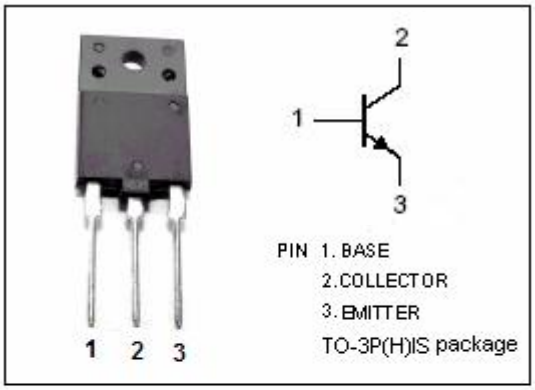
isc Silicon NPN Power Transistor — 2SD1431

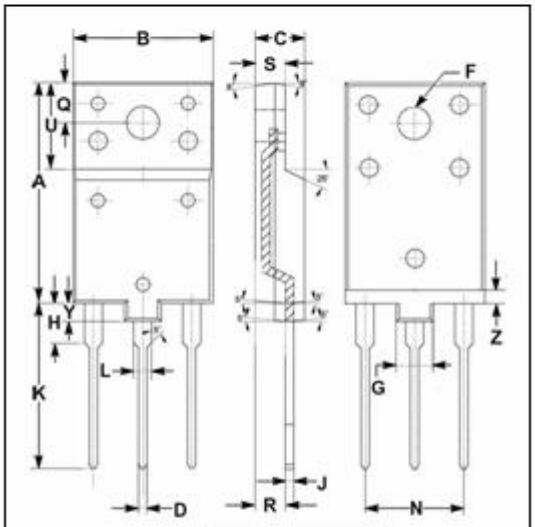


DESCRIPTION

- High Speed
  t_f= 1.0 us(MIN) @ I_C= 4A , $I_{B(end)}$= 0.8A
- High Voltage
  V_{CBO}=1300V
- Low Saturation Voltage
  $V_{CE(sat)}$<5.0V@ I_C = 4A; I_B = 0.8A
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for color TV horizontal output applications



DIM	mm MIN	mm MAX
A	24.10	24.70
B	15.20	15.80
C	5.20	5.80
D	0.65	1.05
F	3.30	3.90
G	3.90	4.10
H	4.30	4.70
J	0.80	1.00
K	18.30	18.70
L	1.90	2.40
N	10.70	11.10
Q	4.40	4.60
R	3.30	3.70
S	3.20	3.40
U	9.50	9.70
Y	1.90	2.10
Z	1.40	1.60

ABSOLUTE MAXIMUM RATINGS (T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	1300	V
V_{CEO}	Collector-Emitter Voltage	600	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	5	A
I_E	Emitter Current	5	A
P_C	Collector Power Dissipation @T_C=25℃	80	W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 4A; I_B= 0.8A			5.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 4A; I_B= 0.8A			1.5	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 500V; 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= 1A; V_{CE}= 5V	8	20		
C_{OB}	Output Capacitance	I_E= 0 ; V_{CB}= 10V;f_{test}= 1MHz		165		pF
Switching times						
t_f	Fall Time	I_C= 4A , $I_{B(end)}$= 0.8A;			1.0	μs