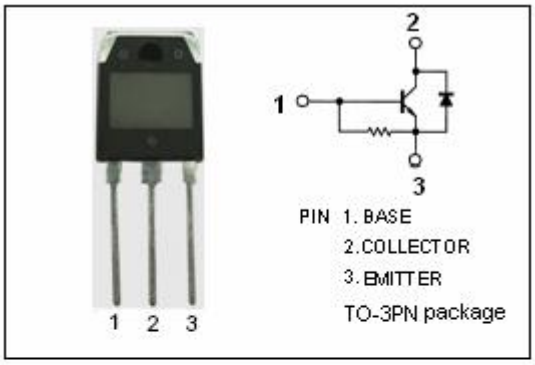
isc Silicon NPN Power Transistor 2SD1439

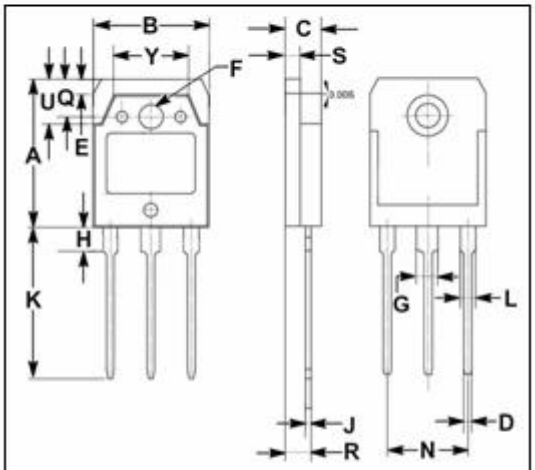


DESCRIPTION

- High Voltage
- High Switching Speed
- Built-in damper diode
- Wide Area of Safe Operation

APPLICATIONS

- Designed for use in horizontal deflection circuits of colour TV receivers.



DIM	mm MIN	mm MAX
A	19.90	20.10
B	15.50	15.70
C	4.70	4.90
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.90	3.10
H	3.20	3.40
J	0.595	0.605
K	20.50	20.70
L	1.90	2.10
N	10.89	10.91
Q	4.90	5.10
R	3.35	3.45
S	1.995	2.005
U	5.90	6.10
Y	9.90	10.10

ABSOLUTE MAXIMUM RATINGS (T_a=25℃)

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-Peak	10	A
I_{BP}	Base Current- Peak	3.5	A
P_C	Collector Power Dissipation @T_C=25℃	50	W
	Collector Power Dissipation @T_a=25℃	2.5	
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-65-150	℃

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E= 500mA; I_C= 0	5			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 2A; I_B= 0.75A			5.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 2A; I_B= 0.75A			1.5	V
h_{FE}	DC Current Gain	I_C= 2A ; V_{CE}= 10V	4		12	
I_{CBO}	Collector Cutoff Current	V_{CB}= 750V; I_E= 0			50	μA
		V_{CB}= 1500V; I_E= 0			1.0	mA
V_{ECF}	C-E Diode Forward Voltage	I_F= 2A			2.2	V
f_T	Transition Frequency	I_C= 0.5A ; V_{CE}= 10V		2		MHz
Switching Times						
t_s	Storage Time	I_C= 2A; I_B= 0.75A; L_{leak}= 5μH			7	μs
t_f	Fall Time				0.75	μs