

isc Silicon NPN Power Transistor

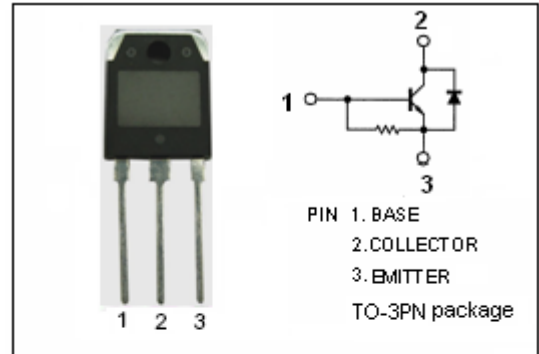
2SD1440

DESCRIPTION

- High Breakdown Voltage-
: $V_{CBO} = 1500V$ (Min)
- High Switching Speed
- Built-in Damper Diode

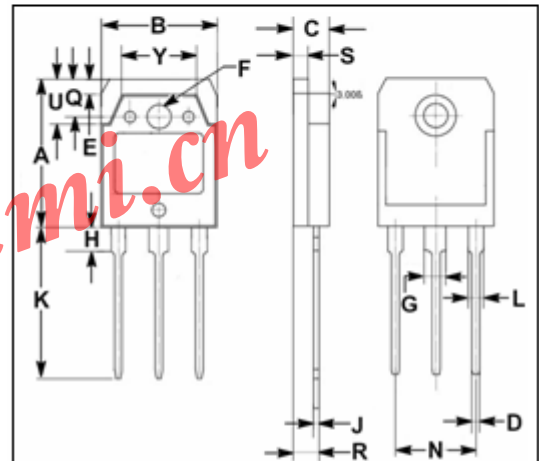
APPLICATIONS

- Designed for 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	3.5	A
I_{CP}	Collector Current-Peak	13	A
I_{BP}	Base Current-Peak	3.5	A
P_C	Collector Power Dissipation @ $T_a = 25^{\circ}C$	2.5	W
	Collector Power Dissipation @ $T_c = 25^{\circ}C$	65	
T_J	Junction Temperature	130	$^{\circ}C$
T_{stg}	Storage Temperature Range	-55~130	$^{\circ}C$



DIM	mm	
	MIN	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

isc Silicon NPN Power Transistor**2SD1440****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	$I_C=2.5\text{A}; I_B=0.8\text{A}$			5.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=2.5\text{A}; I_B=0.8\text{A}$			1.5	V
I_{CBO}	Collector Cutoff Current	$V_{CB}=750\text{V}; I_E=0$ $V_{CB}=1500\text{V}; I_E=0$			50 1.0	μA mA
h_{FE}	DC Current Gain	$I_C=2.5\text{A}; V_{CE}=10\text{V}$	4		15	
f_T	Current-Gain—Bandwidth Product	$I_C=0.5\text{A}; V_{CE}=10\text{V}$		2		MHz
V_{ECF}	C-E Diode Forward Voltage	$I_F=4\text{A}$			2.2	V
t_s	Storage Time	$I_C=2.5\text{A}, I_{Bend}=0.8\text{A}, L_{leak}=5\mu\text{H}$			9.0	μs
t_f	Fall Time				0.8	μs