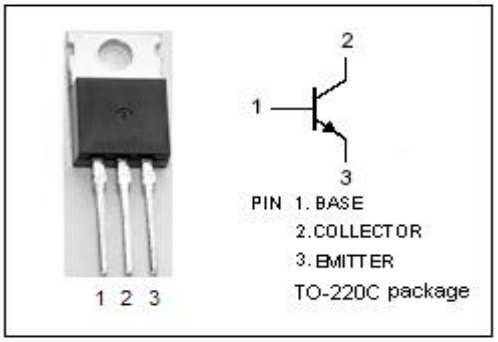
isc Silicon NPN Power Transistors — D44VH10G

DESCRIPTION

- Low Collector-Emitter Saturation Voltage
  : $V_{CE(sat)}$= 0.4V(Max)@ I_C = 8A
- Fast Switching Speeds
- Complement to Type D45VH10
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

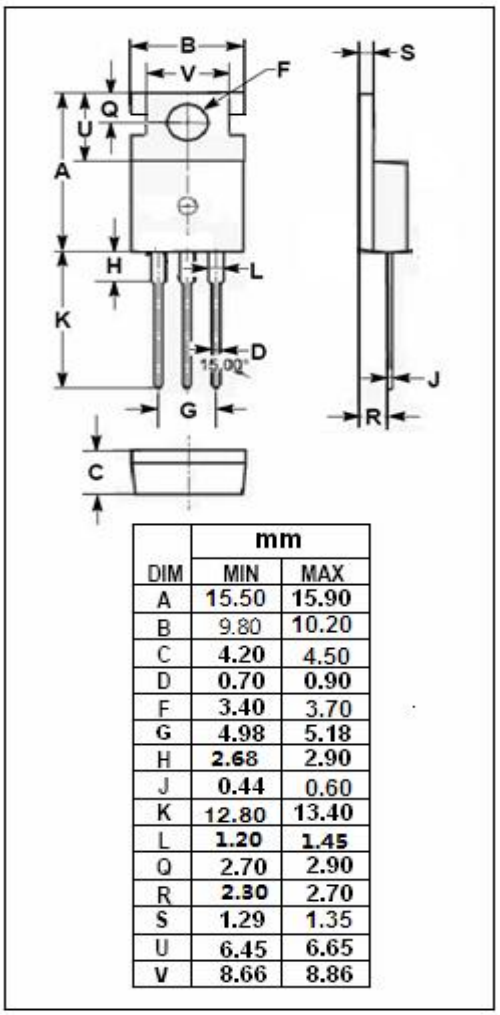
- Designed for general purpose power amplification and switching such as output or driver stages in applications such as switching regulators,converters and power amplifier.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CEO}	Collector-Emitter Voltage	80	V
V_{CBO}	Collector-Base Voltage	100	V
V_{EBO}	Emitter-Base Voltage	7.0	V
I_C	Collector Current-Continuous	15	A
P_C	Collector Power Dissipation @T_C=25℃	83	W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance, Junction to Case	1.5	℃/W



DIM	mm MIN	mm MAX
A	15.50	15.90
B	9.80	10.20
C	4.20	4.50
D	0.70	0.90
F	3.40	3.70
G	4.98	5.18
H	2.68	2.90
J	0.44	0.60
K	12.80	13.40
L	1.20	1.45
Q	2.70	2.90
R	2.30	2.70
S	1.29	1.35
U	6.45	6.65
V	8.66	8.86

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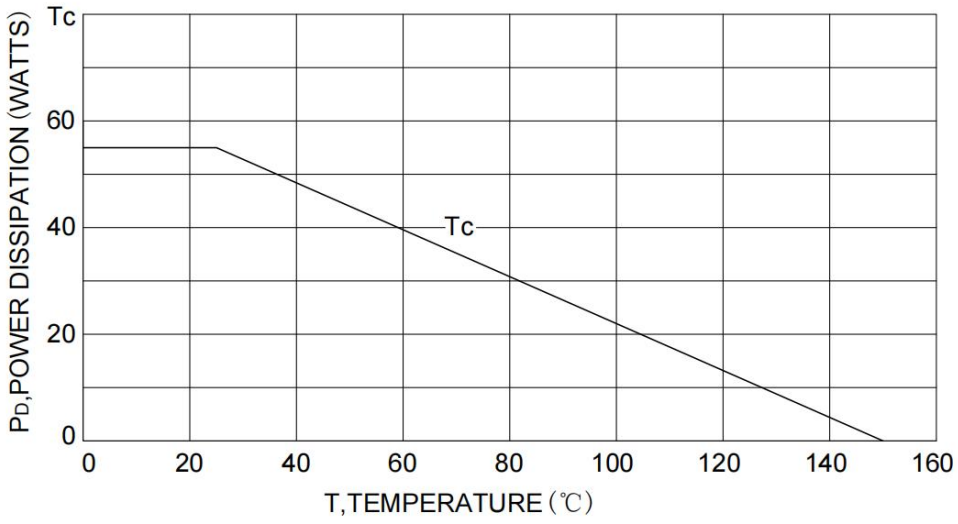
ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V_{EBO}	Emitter-Base Breakdown Voltage	I_E= 1mA; I_C= 0	7	-	V
V_{CEO}	Collector-Emitter Breakdown Voltage	I_C= 10mA; I_B= 0	80	-	V
V_{CBO}	Collector-Base Breakdown Voltage	I_C=1mA; I_B= 0	100	-	V
I_{EBO}	Emitter Cutoff Current	V_{EB}= 7V； I_C= 0	-	10	μA
I_{CEO}	Collector-Emitter Cutoff Current	V_{CE}= 80V； I_B= 0	-	1	mA
I_{CBO}	Collector-Emitter Cutoff Current	V_{CE}= 80V； I_E= 0	-	100	μA
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 8A ;I_B= 0.4 A	-	0.4	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 8A ;I_B= 0.8 A	-	1.2	V
h_{FE-1}	DC Current Gain	I_C= 2A ; V_{CE}= 1V	35	-	-
h_{FE-2}	DC Current Gain	I_C= 4A ; V_{CE}= 1V	20	-	-

- **Power and temperature curve**



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