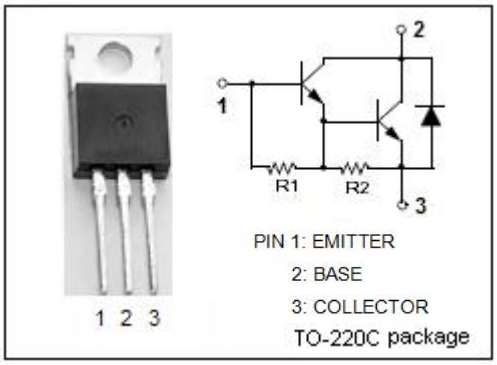
isc Silicon NPN Darlington Power Transistor D40C7



DESCRIPTION

- High DC Current Gain-
  : h_{FE} = 10K-70K
- Collector-Emitter Sustaining Voltage-
  : $V_{CEO(SUS)}$ = 50V(Min)
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

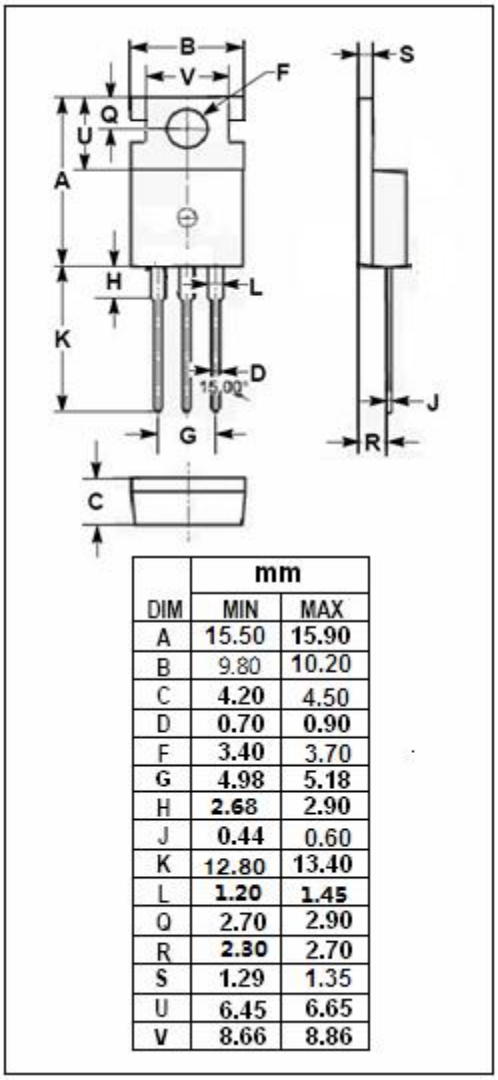
- Designed for general-purpose amplifier and low-speed switching applications

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	50	V
V_{CEO}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	13	V
I_C	Collector Current-Continuous	0.5	A
I_{CM}	Collector Current-Peak	1	A
P_C	Collector Power Dissipation @T_C=25℃	6.25	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	20	℃/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
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= 10mA, I_B= 0	50		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 500mA ,I_B= 0.5mA		1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 500mA ,I_B= 0.5mA		2	V
I_{CBO}	Collector Cutoff Current	V_{CB}=50V, I_E= 0		20	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 13V; I_C= 0		100	nA
h_{FE}	DC Current Gain	I_C= 200mA ; V_{CE}= 5V	10K	70K	