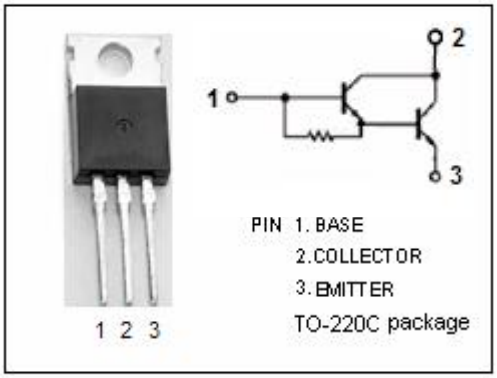
isc Silicon NPN Darlington Power Transistor 2SD1162



DESCRIPTION

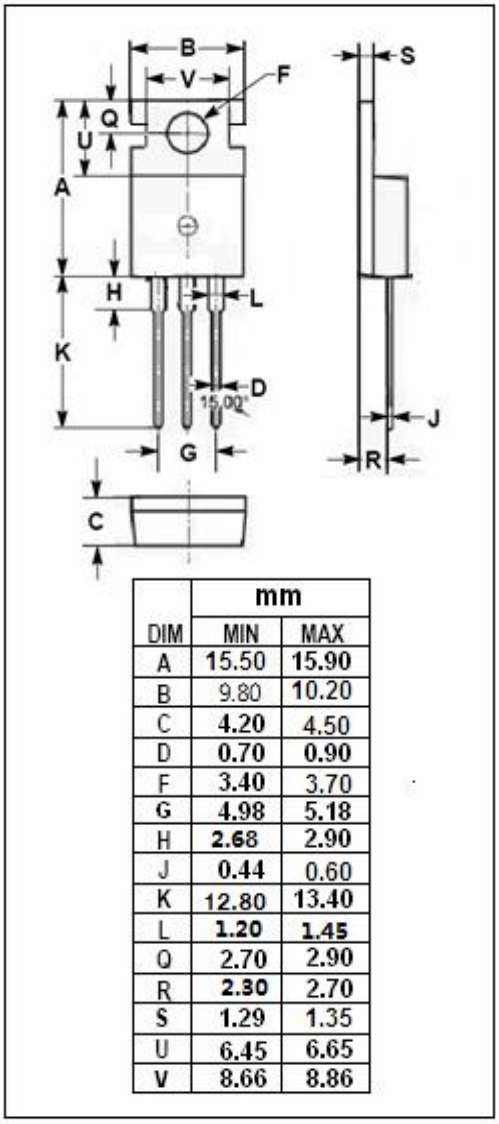
- High DC Current Gain-
  : h_{FE}= 400(Min.)@I_C= 2A
- High Switching Speed
- Low Collector Saturation Voltage
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for high voltage, low speed switching industrial use.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	500	V
V_{CEO}	Collector-Emitter Voltage	300	V
V_{EBO}	Emitter-Base Voltage	10	V
I_C	Collector Current-Continuous	5	A
I_{CM}	Base Current-Peak	10	A
I_B	Base Current-Continuous	0.5	A
P_C	Collector Power Dissipation @ T_C=25℃	40	W
	Collector Power Dissipation @ T_a=25℃	1.5	
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



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

isc Silicon NPN Darlington Power Transistor 2SD1162

ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= 10mA ; I_B= 0	300			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 2A; I_B= 5mA			1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 2A; I_B= 5mA			2.0	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 400V; I_E= 0			10	μA
h_{FE-1}	DC Current Gain	I_C= 2A ; V_{CE}= 2V	400		3000	
h_{FE-2}	DC Current Gain	I_C= 3A ; V_{CE}= 2V	100			
Switching Times						
t_{on}	Turn-On Time	I_C= 3A; I_{B1}= I_{B2}= 30mA; R_L= 50Ω ,V_{CC}≈150V		1.0		μs
t_s	Storage Time			12		μs
t_f	Fall Time			6		μs

◆ **h_{FE-1} Classifications**

M	L	K
400-800	600-1200	1000-3000