

isc Silicon NPN Darlington Power Transistor

2SD1162

DESCRIPTION

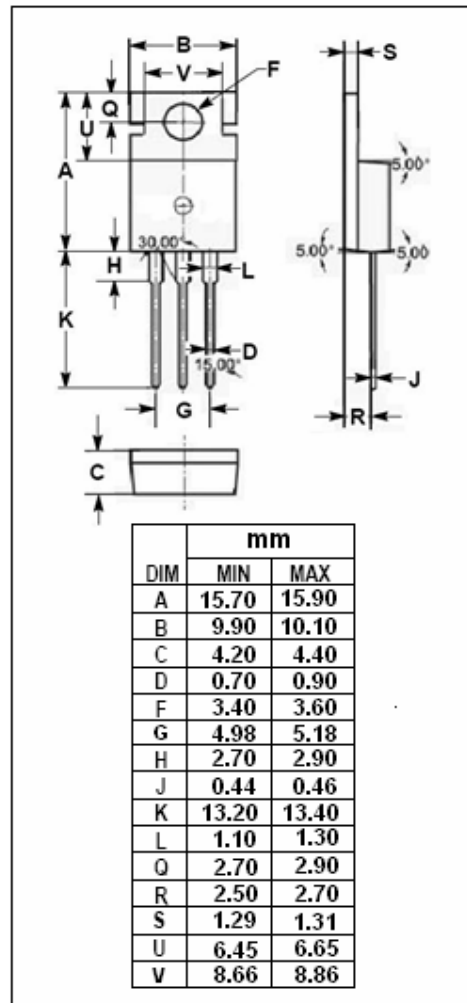
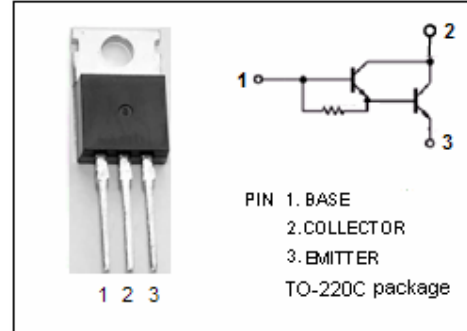
- High DC Current Gain-
: $h_{FE} = 400(\text{Min.}) @ I_C = 2A$
- High Switching Speed
- Low Collector Saturation Voltage

APPLICATIONS

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

ABSOLUTE MAXIMUM RATINGS($T_a = 25^\circ\text{C}$)

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 @ $T_C = 25^\circ\text{C}$	40	W
	Collector Power Dissipation @ $T_a = 25^\circ\text{C}$	1.5	
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



isc Silicon NPN Darlington Power Transistor**2SD1162****ELECTRICAL CHARACTERISTICS** $T_C=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C=10\text{mA}; I_B=0$	300			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=2\text{A}; I_B=5\text{mA}$			1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=2\text{A}; I_B=5\text{mA}$			2.0	V
I_{CBO}	Collector Cutoff Current	$V_{CB}=400\text{V}; I_E=0$			10	μA
h_{FE-1}	DC Current Gain	$I_C=2\text{A}; V_{CE}=2\text{V}$	400		3000	
h_{FE-2}	DC Current Gain	$I_C=3\text{A}; V_{CE}=2\text{V}$	100			

Switching Times

t_{on}	Turn-On Time	$I_C=3\text{A}; I_{B1}=-I_{B2}=30\text{mA}; R_L=50\Omega, V_{CC}\approx 150\text{V}$		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