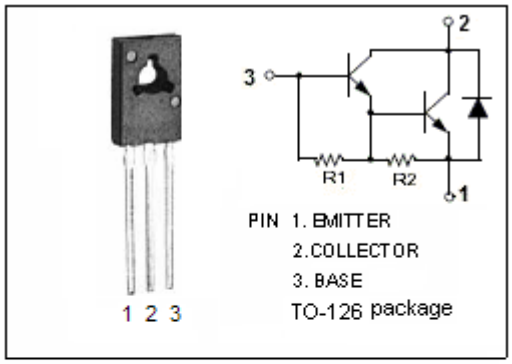
isc Silicon NPN Darlington Power Transistor KSD985

DESCRIPTION

- Collector–Emitter Breakdown Voltage–
  : $V_{(BR)CEO}$ = 60V(Min.)
- DC Current Gain–
  : h_{FE} = 2000(Min) @ I_C= 1A
- Low Collector Saturation Voltage

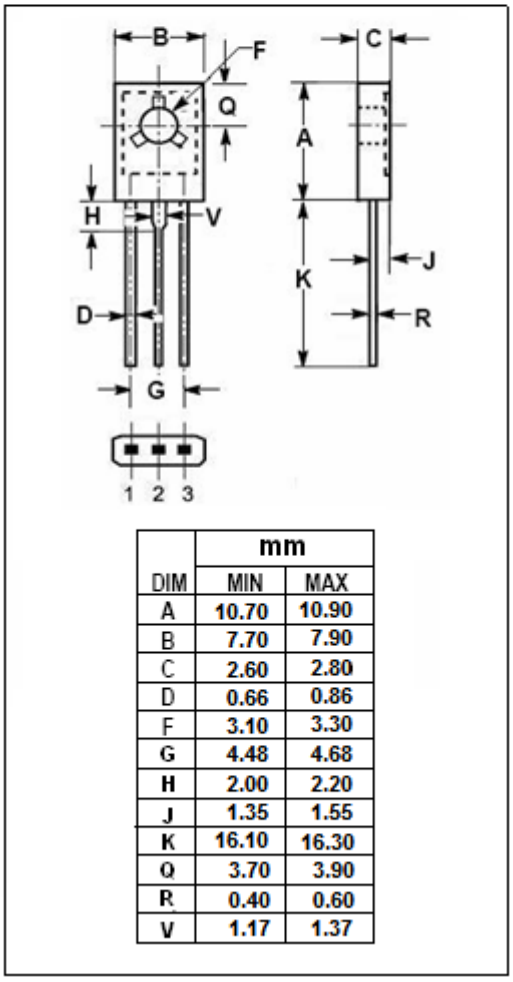


APPLICATIONS

- They are suitable for use to operate from IC without predriver, such as hammer driver.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	150	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	8	V
I_C	Collector Current-Continuous	1.5	A
I_{CM}	Collector Current-Pulse	3.0	A
I_B	Base Current	0.15	A
P_C	Collector Power Dissipation T_a=25℃	1.0	W
	Collector Power Dissipation T_C=25℃	10	
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



DIM	mm MIN	MAX
A	10.70	10.90
B	7.70	7.90
C	2.60	2.80
D	0.66	0.86
F	3.10	3.30
G	4.48	4.68
H	2.00	2.20
J	1.35	1.55
K	16.10	16.30
Q	3.70	3.90
R	0.40	0.60
V	1.17	1.37

isc Silicon NPN Darlington Power Transistor KSD985

ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 1A; I_B= 1mA			1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 1A; I_B= 1mA			2.0	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 60V; I_E= 0			10	μA
I_{CER}	Collector Cutoff Current	V_{CE}=60V;R_{BE}=51Ω;T_C=125℃			1.0	mA
I_{CEX}	Collector Cutoff Current	V_{CE}= 60V; $V_{BE(off)}$= -1.5A			10	μA
		V_{CE}= 60V; $V_{BE(off)}$= -1.5A T_C=125℃			1.0	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C= 0			2.0	mA
h_{FE-1}	DC Current Gain	I_C= 0.5A; V_{CE}= 2V	1000			
h_{FE-2}	DC Current Gain	I_C= 1A; V_{CE}= 2V	2000		30000	
Switching Times						
t_{on}	Turn-on Time	I_C=1.0A; I_{B1}=-I_{B2}=1.0mA V_{CC}=50V; R_L=50Ω		0.5		μs
t_{stg}	Storage Time			1.0		μs
t_f	Fall Time			1.0		μs

◆ **h_{FE-2} Classifications**

R	O	Y
2000-5000	4000-10000	8000-30000