

isc Silicon NPN Darlington Power Transistor

2SD1670

DESCRIPTION

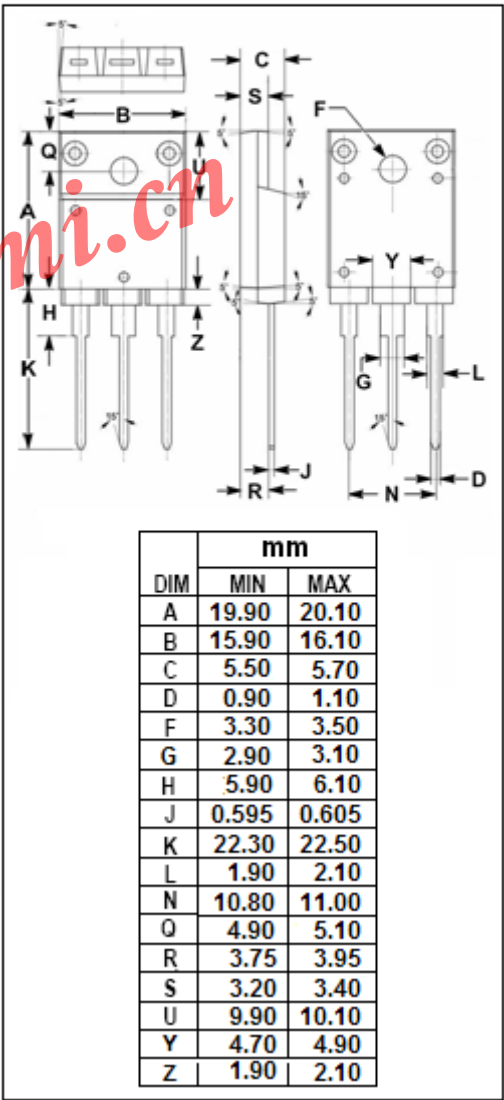
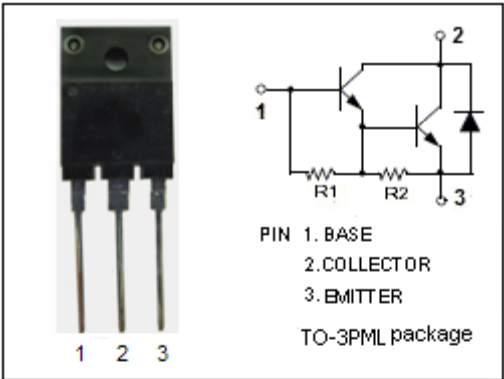
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 100V(\text{Min})$
- High DC Current Gain-
: $h_{FE} = 1000(\text{Min.}) @ I_C = 10A$
- Low Collector Saturation Voltage-
: $V_{CE(sat)} = 1.5V(\text{Max}) @ I_C = 10A$

APPLICATIONS

- For low speed high current switching industrial use.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	150	V
V_{CEO}	Collector-Emitter Voltage	100	V
V_{EBO}	Emitter-Base Voltage	8	V
I_C	Collector Current-Continuous	± 10	A
I_{CM}	Collector Current-Peak	± 20	A
I_B	Base Current-Continuous	1	A
P_C	Collector Power Dissipation @ $T_a=25^{\circ}C$	3.5	W
	Collector Power Dissipation @ $T_c=25^{\circ}C$	65	
T_J	Junction Temperature	150	$^{\circ}C$
T_{stg}	Storage Temperature	-55~150	$^{\circ}C$



ISC Silicon NPN Darlington Power Transistor**2SD1670****ELECTRICAL CHARACTERISTICS****T_j=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 10A; I _B = 25mA			1.5	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 10A; I _B = 25mA			2.0	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 100V ; I _E = 0			10	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0			3.0	mA
h _{FE}	DC Current Gain	I _C = 10A; V _{CE} = 2V	1000		30000	

Switching Times

t _{on}	Turn-on Time	V _{CC} ≈ 50V, R _L = 5Ω, I _C = 10A, I _{B1} = I _{B2} = 25mA,	1.0		μ s
t _{stg}	Storage Time		5.0		μ s
t _f	Fall Time		2.0		μ s

◆ h_{FE-1} Classifications

M	L	K	J
1000-3000	2000-5000	4000-10000	8000-30000