

isc Silicon NPN Darlington Power Transistor
2SD1765
DESCRIPTION

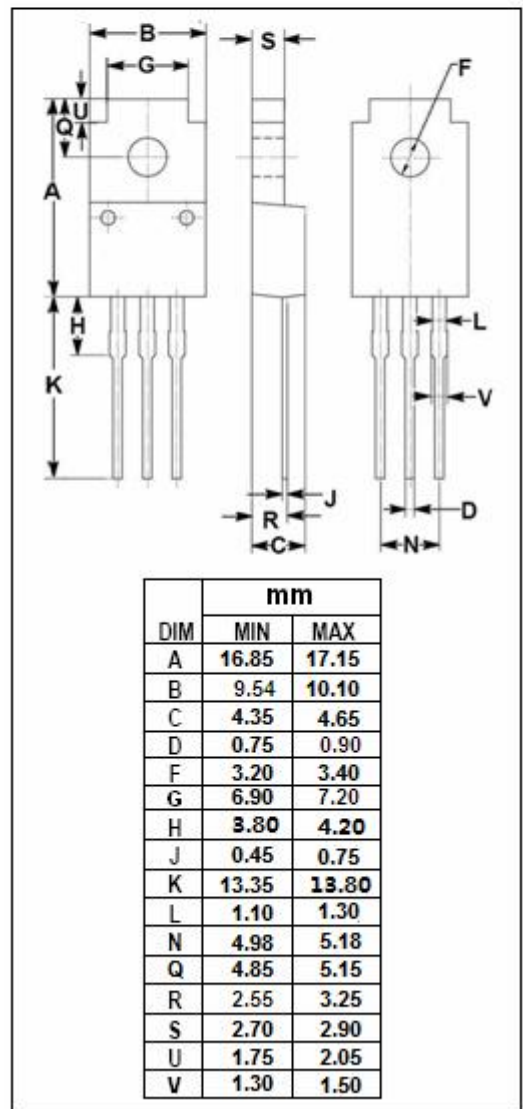
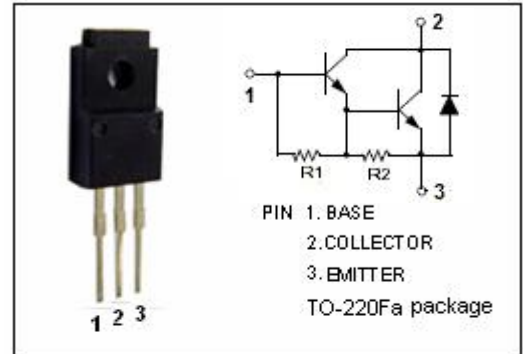
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 100V(\text{Min})$
- Collector-Emitter Saturation Voltage-
: $V_{CE(sat)} = 1.5V(\text{Max.}) @ I_C = 1A$
- High DC Current Gain
: $h_{FE} = 1000(\text{Min.}) @ I_C = 1A, V_{CE} = 2V$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for low frequency power amplifier applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	100	V
V_{CEO}	Collector-Emitter Voltage	100	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	2	A
I_{CM}	Collector Current-Pulse	3	A
P_C	Collector Power Dissipation @ $T_a=25^\circ\text{C}$	2	W
	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	20	
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



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ELECTRICAL CHARACTERISTICS

T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 5mA; I _B = 0	100			V
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _C = 50 μ A; I _E = 0	100			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 1A; I _B = 1mA			1.5	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 = 1A; V _{CE} = 2V	1000		10000	
C _{OB}	Collector Output Capacitance	I _E = 0; V _{CB} = 10V; f= 1MHz		25		pF

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