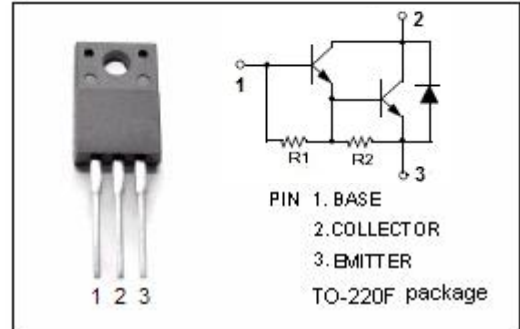


isc Silicon NPN Darlington Power Transistor
2SD2257
DESCRIPTION

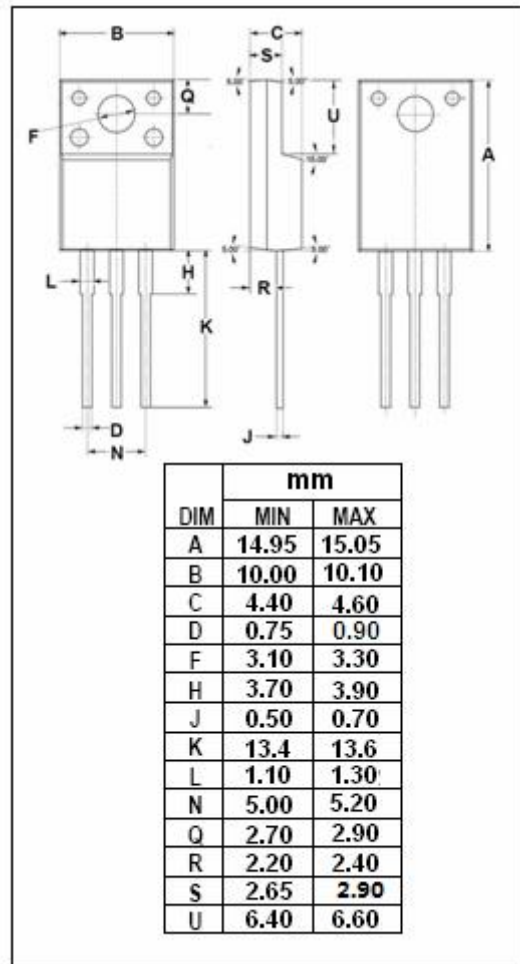
- Collector-Emitter Saturation Voltage-
: $V_{CE(sat)} = 1.5V(\text{Max}) @ I_C = 1.5A$
- High DC Current Gain
: $h_{FE} = 2000(\text{Min}) @ I_C = 2A, V_{CE} = 2V$
- Complement to Type 2SB1495
- Minimum Lot-to-Lot variations for robust device performance and reliable operation


APPLICATIONS

- High power switching applications
- Hammer drive, pulse motor drive 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	8	V
I_C	Collector Current-Continuous	3	A
I_{CM}	Collector Current-Peak	5	A
I_B	Base Current-Continuous	0.3	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	20	W
	Collector Power Dissipation @ $T_a = 25^\circ\text{C}$	2.0	
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



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2SD2257

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 = 10mA; I _B = 0	100			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 1.5A; I _B = 1.5mA			1.5	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 1.5A; I _B = 1.5mA			2.0	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 100V; I _E = 0			10	μA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 8V; I _C = 0			4.0	mA
V _{ECF}	C-E Diode Forward Voltage	I _F = 1A			2.0	V
h _{FE-1}	DC Current Gain	I _C = 1A; V _{CE} = 2V	2000			
h _{FE-2}	DC Current Gain	I _C = 2A; V _{CE} = 2V	2000			

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