

isc Silicon NPN Power Transistors

2SD476

DESCRIPTION

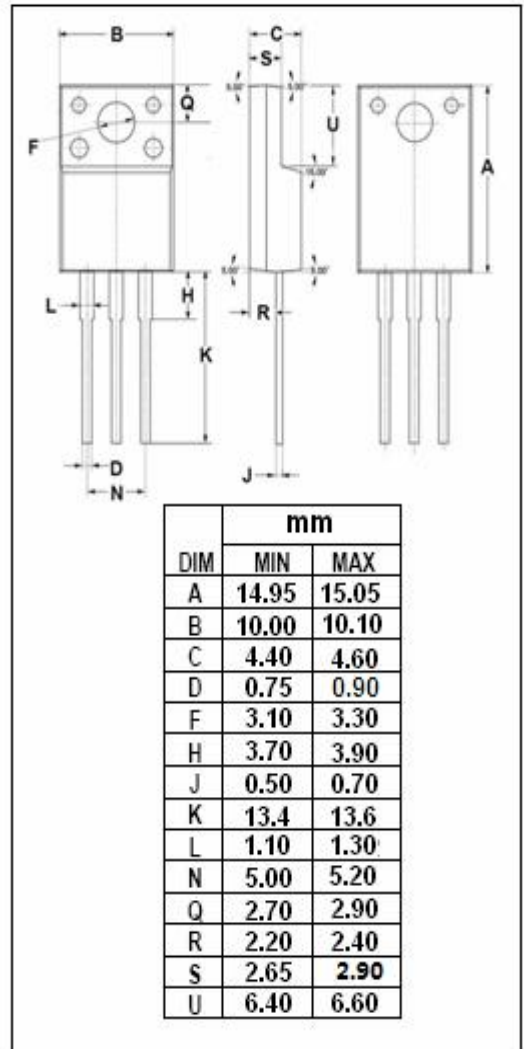
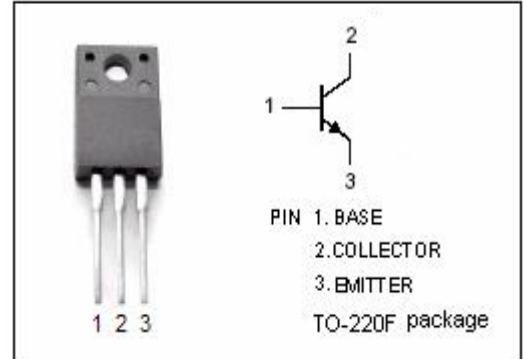
- Low Collector Saturation Voltage
: $V_{CE(sat)} = 1.0V(\text{Max}) @ I_C = 2A$
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 50V (\text{Min})$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for power switching applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	70	V
V_{CEO}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	4	A
I_{CM}	Collector Current-Peak	8	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ C$	40	W
T_J	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature Range	-55~150	$^\circ C$



isc Silicon NPN Power Transistors**2SD476****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 ; R _{BE} = ∞	50			V
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _C = 10 μA ; I _E = 0	70			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 10 μA ; I _C = 0	5			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 2A ; I _B = 0.2A			1.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 2A ; I _B = 0.2A			1.2	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 50V ; I _E = 0			1.0	μA
h _{FE -1}	DC current gain	I _C = 1A ; V _{CE} = 4V	200		300	
h _{FE -2}	DC current gain	I _C =0.1A ; V _{CE} = 4V	35			
f _T	Current-Gain—Bandwidth Product	I _C = 0.5A ; V _{CE} = 4V		7		MHz

Switching times

t _{on}	Turn-on Time	I _C = 0.5A ; I _{B1} = I _{B2} = 50mA ; V _{CC} = 10.5V		0.3		μs
t _{off}	Turn-off Time			3.0		μs
t _{stg}	Fall Time			2.5		μs

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