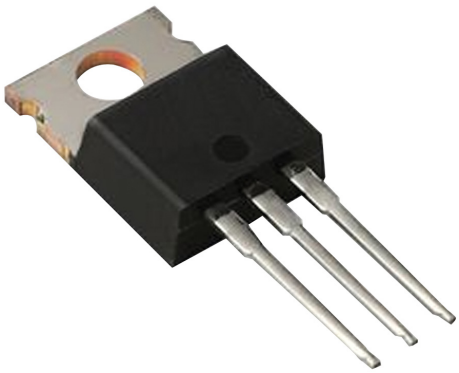
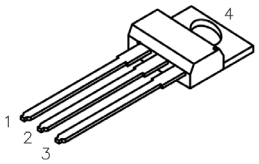
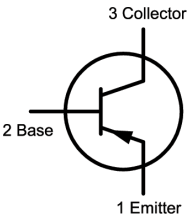
Medium Power Transistor

RoHS Compliant







Description:

The 2N6476, PNP General Purpose, medium power silicon transistor in a TO-220 type package designed for switching and amplifier applications. This devices is especially designed for series and shunt regulators and as a driver and output stage of high-fidelity amplifiers.

Features:

- Low Saturation Voltage

Maximum Ratings:

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	130	V
Collector-Emitter Voltage (R_{BB} = 100Ω, V_{BB} = 0)	V_{CEX}		
Collector-Emitter Voltage	V_{CEO}	120	
Emitter Base Current	V_{EBO}	5	
Continuous Collector Current (T_C≦ + 106°C)	I_C	4	A
Continuous Base Current (T_C≦ + 130°C)	I_B	120	mA
Total Device Dissipation -(T_C = +100°C), Derate Linearly Above 100°C	P_D	16 0.32	W W/°C
Total Device Dissipation -(T_C = +25°C), Derate Linearly Above 25°C		40 0.32	
Total Device Dissipation -(T_A = +25°C), Derate Linearly Above 25°C		1.8 0.0144	
Operating Junction Temperature Range	T_{opr}	-65 to +150	°C
Storage Temperature Range,	T_{stg}		
Lead Temperature (During Soldering, 1/8" (3.17mm) from case, 10sec max)	T_L	+235	°C

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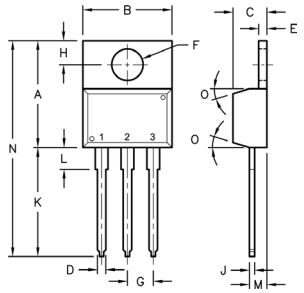
Electrical Characteristics: (T_C = +25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Max	Unit
Collector Cutoff Current	I_{CEO}	V_{CE} = 60V, I_B = 0	-	1	mA
	I_{CER}	V_{CE} = 120V, R_{BE} = 100Ω		0.1	
		V_{CE} = 120V, R_{BE} = 100Ω, TC = +100°C		2	
	I_{CEX}	V_{CE} = 120V, V_{BE} = -1.5V		0.1	
		V_{CE} = 120V, V_{BE} = -1.5V, TC = +100°C		2	
Emitter Cutoff Current	I_{EBO}	V_{EB} = -5V, I_C = 0		1	
Collector-Emitter Sustaining Voltage	$V_{CEO(SUS)}$	I_C = 100mA, I_B = 0, (Note 2)	120	-	V
	$V_{CER(SUS)}$	R_{BE} = 100Ω, I_C = 100mA, (Note 2)	130		
DC Current Gain	h_{FE}	I_C = 1.5A, V_{CE} = 4V, (Note 1)	15	150	-
		I_C = 4A, V_{CE} = 2.5V, (Note 1)	2	-	
Base-Emitter Voltage	$V_{BE(on)}$	I_C = 1.5A, V_{CE} = 4V, (Note 1)	-	2	V
		I_C = 4A, V_{CE} = 2.5V, (Note 1)		3.5	
Collector-Emitter Sustaining Voltage	$V_{CE(Sat)}$	I_C = 1.5A, I_B = 150mA, (Note 1)		1.2	
		I_C = 4A, I_B = 2A, (Note 1)		2.5	
Small-Signal Forward Current Transfer Ratio	h_{fe}	V_{CE} = 4V, I_C = 500mA, f = 1MHz	5	-	-
Gain bandwidth Product	f_T	V_{CE} = 4V, I_C = 500mA	4		MHz
Collector -Base Capacitance	C_{obo}	V_{CB} = 10V, I_C = 0, f = .1MHz	-	250	pF

Note:
1. Pulse Width = 300μs, Duty Cycle ≦2%



Pin Configuration:
1. Base
2. Collector
3. Emitter
4. Collector

Dim	A	B	C	D	E	F	G	H	J	K	L	M	N	O
Min.	14.42	9.63	3.65	-	1.15	3.75	2.29	2.54	-	12.7	2.8	2.03	-	7°
Max.	16.51	10.67	4.83	0.9	1.4	3.88	2.79	3.43	0.56	14.73	4.07	2.92	31.24	

Dimensions : Millimetres

Part Number Table

Description	Part Number
Transistor, PNP, 4A, 120V, TO-220	2N6476