

Silicon NPN Power Transistors

2N6477 2N6478

DESCRIPTION

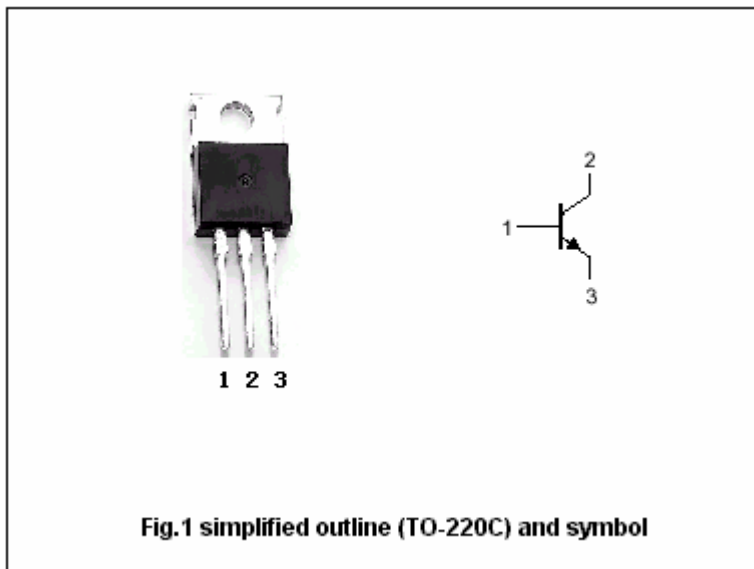
- With TO-220 package
- Low collector saturation voltage
- High voltage ratings
- Excellent safe operating area

APPLICATIONS

- Series and shunt regulators
- High-fidelity amplifiers
- Power switching circuits
- Solenoid drivers

PINNING

PIN	DESCRIPTION
1	Base
2	Collector;connected to mounting base
3	Emitter



Absolute maximum ratings(Ta=25)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	2N6477	140	V
		2N6478	160	
V _{CEO}	Collector-emitter voltage	2N6477	120	V
		2N6478	140	
V _{EBO}	Emitter-base voltage	Open collector	5	V
I _C	Collector current		2.5	A
I _{CM}	Collector current-peak		4	A
I _B	Base current		1	A
P _T	Total power dissipation	T _C =25	50	W
T _j	Junction temperature		150	
T _{stg}	Storage temperature		-65~150	

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal resistance from junction to case	2.5	/W

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CHARACTERISTICS

T_j=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE0(SUS)}	Collector-emitter sustaining voltage	2N6477	I _C =0.1A ; I _B =0			V
		2N6478				
V _{CEsat-1}	Collector-emitter saturation voltage	I _C =1.0A; I _B =0.1A			1.0	V
V _{CEsat-2}	Collector-emitter saturation voltage	I _C =2.5A; I _B =0.5A			2.0	V
V _{BE-1}	Base-emitter on voltage	I _C =1.0A ; V _{CE} =4V			1.8	V
V _{BE-2}	Base-emitter on voltage	I _C =2.5A ; V _{CE} =4V			3.0	V
I _{CEx}	Collector cut-off current V _{BE} =-1.5V	2N6477	V _{CE} =130V V _{CE} =120V; T _C =150		2.0 10	mA
		2N6478				
I _{CEO}	Collector cut-off current	2N6477	V _{CE} =80V; I _B =0		2.0	mA
		2N6478				
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			2.0	mA
h _{FE-1}	DC current gain	I _C =1.0A ; V _{CE} =4V	25		150	
h _{FE-2}	DC current gain	I _C =2.5A ; V _{CE} =4V	5			
C _{OB}	Output capacitance	I _E =0 ; V _{CB} =10V; f=1MHz			250	pF
f _T	Transition frequency	I _C =0.5A ; V _{CE} =4V		0.2		MHz

