

Silicon NPN Power Transistors

TIP41D/41E/41F

DESCRIPTION

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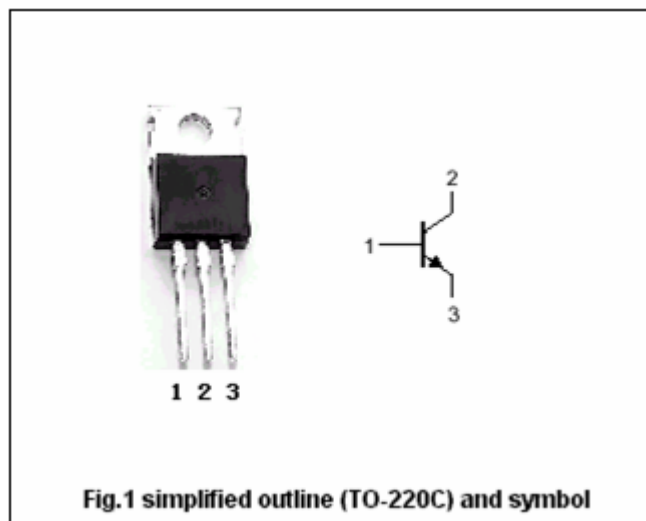
- With TO-220C package
- Complement to type TIP42D/42E/42F

APPLICATIONS

- For medium power linear switching applications

PINNING

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

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

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	TIP41D	Open emitter	160	V
		TIP41E		180	
		TIP41F		200	
V_{CEO}	Collector-emitter voltage	TIP41D	Open base	120	V
		TIP41E		140	
		TIP41F		160	
V_{EBO}	Emitter-base voltage		Open collector	5	V
I_C	Collector current (DC)			6	A
I_{CM}	Collector current-Pulse			10	A
I_B	Base current			3	A
P_C	Collector power dissipation	$T_c=25^\circ\text{C}$		65	W
		$T_a=25^\circ\text{C}$		2	
T_j	Junction temperature			150	$^\circ\text{C}$
T_{stg}	Storage temperature			-65~150	$^\circ\text{C}$

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CHARACTERISTICS

T_j=25°C unless otherwise specified

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SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE(SUS)}	Collector-emitter sustaining voltage	TIP41D	I _C =30mA; I _B =0	120			V
		TIP41E		140			
		TIP41F		160			
V _{CE(sat)}	Collector-emitter saturation voltage		I _C =6A; I _B =1.5A			1.5	V
V _{BE}	Base-emitter on voltage		I _C =6A; V _{CE} =4V			2.0	V
I _{CES}	Collector cut-off current	TIP41D	V _{CE} =120V; V _{EB} =0			0.4	mA
		TIP41E	V _{CE} =140V; V _{EB} =0				
		TIP41F	V _{CE} =160V; V _{EB} =0				
I _{CEO}	Collector cut-off current		V _{CE} =90V; I _B =0			0.7	mA
I _{EBO}	Emitter cut-off current		V _{EB} =5V; I _C =0			1.0	mA
h _{FE-1}	DC current gain		I _C =0.3A; V _{CE} =4V	30			
h _{FE-2}	DC current gain		I _C =3A; V _{CE} =4V	15			
f _T	Transition frequency		I _C =0.5A; V _{CE} =10V	3			MHz

TIP41D/41E/41F

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