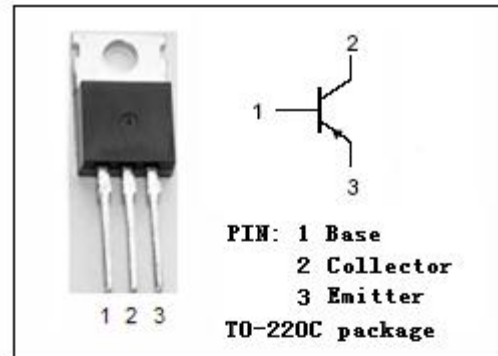


DESCRIPTION

- DC Current Gain $-h_{FE} = 30(\text{Min})@ I_C = -0.3A$
- Collector-Emitter Sustaining Voltage-
: $V_{CEO(\text{SUS})} = -40V(\text{Min})$ - TIP42; $-60V(\text{Min})$ - TIP42A
 $-80V(\text{Min})$ - TIP42B; $-100V(\text{Min})$ - TIP42C
- Complement to Type TIP41/41A/41B/41C

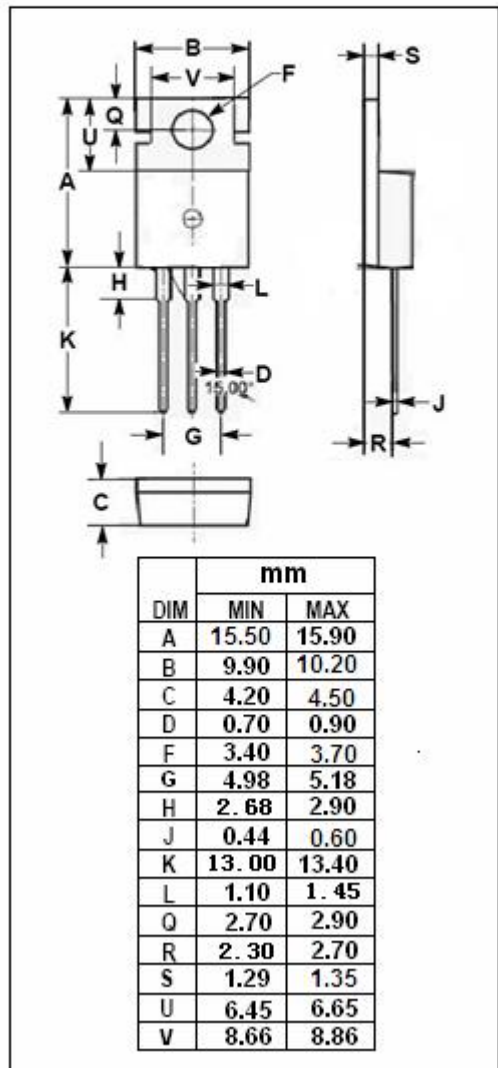
APPLICATIONS

- Designed for use in general purpose amplifier and switching applications



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

SYMBOL	PARAMETER	VALUE	UNIT	
V_{CBO}	Collector-Base Voltage	TIP42	-40	V
		TIP42A	-60	
		TIP42B	-80	
		TIP42C	-100	
V_{CEO}	Collector-Emitter Voltage	TIP42	-40	V
		TIP42A	-60	
		TIP42B	-80	
		TIP42C	-100	
V_{EBO}	Emitter-Base Voltage	-5	V	
I_C	Collector Current-Continuous	-6	A	
I_{CM}	Collector Current-Peak	-10	A	
I_B	Base Current	-2	A	
P_c	Collector Power Dissipation $T_c=25^\circ\text{C}$	65	W	
	Collector Power Dissipation $T_a=25^\circ\text{C}$	2		
T_j	Junction Temperature	150	$^\circ\text{C}$	
T_{stg}	Storage Temperature Range	-65~150	$^\circ\text{C}$	



SPTECH Silicon PNP Power Transistors TIP42/42A/42B/42C

ELECTRICAL CHARACTERISTICS

T_c=25°C unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	MAX	UNIT
V _{CEO(SUS)} *	Collector-Emitter Sustaining Voltage	TIP42	I _C = -30mA; I _B = 0	-40		V
		TIP42A		-60		
		TIP42B		-80		
		TIP42C		-100		
V _{CE(sat)} *	Collector-Emitter Saturation Voltage		I _C = -6A ; I _B = -0.6A		-1.5	V
V _{BE(on)} *	Base-Emitter On Voltage		I _C = -6A ; V _{CE} = -4V		-2.0	V
I _{CBO}	Collector Cutoff Current	TIP42	V _{CB} = -40V; V _{EB} = 0		-0.4	mA
		TIP42A	V _{CB} = -60V; V _{EB} = 0			
		TIP42B	V _{CB} = -80V; V _{EB} = 0			
		TIP42C	V _{CB} = -100V; V _{EB} = 0			
I _{CEO}	Collector Cutoff Current	TIP42/42A	V _{CE} = -30V; I _B = 0		-0.7	mA
		TIP42B/42C	V _{CE} = -60V; I _B = 0			
I _{EBO}	Emitter Cutoff 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	75	
f _T	Current-Gain—Bandwidth Product		I _C = -0.5A ; V _{CE} = -10V	3		MHz

* Pulse Test: PW≤300μs, Duty Cycle≤2%