

2N6045

NPN Silicon Power Darlington Transistor

GENERAL DESCRIPTION

- Halogen free available upon request by adding suffix "-HF"
- Silicon NPN medium power Darlington transistors in a plastic envelope, primarily for use in low-speed switching and general purpose.
- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Mounting Torque: 5 in-lbs Maximum

QUICK REFERENCE DATA

SYMBOL	PARAMETER	CONDITION	MIN	MAX	UNIT
V _{CESM}	Collector-emitter voltage peak value	V _{BE} =0V	100		V
V _{CEO}	Collector-emitter voltage (open base)		100		V
I _C	Collector current (DC)		8.0		A
I _{CM}	Collector current peak value		16		A
P _{TOT}	Total power dissipation	T _{mb} ≤25°C	75		W
V _{CEsat}	Collector -emitter saturation voltage	I _C =8A; I _B =0.08A		4.0	V
I _{csat}	Collector saturation current				A
V _{BE}	Emitter forward voltage	I _E =8A			V
t _f	Fall time	I _C =3.0A; I _{B1} =-I _{B2} =0.3A; V _{CC} =30V			μs

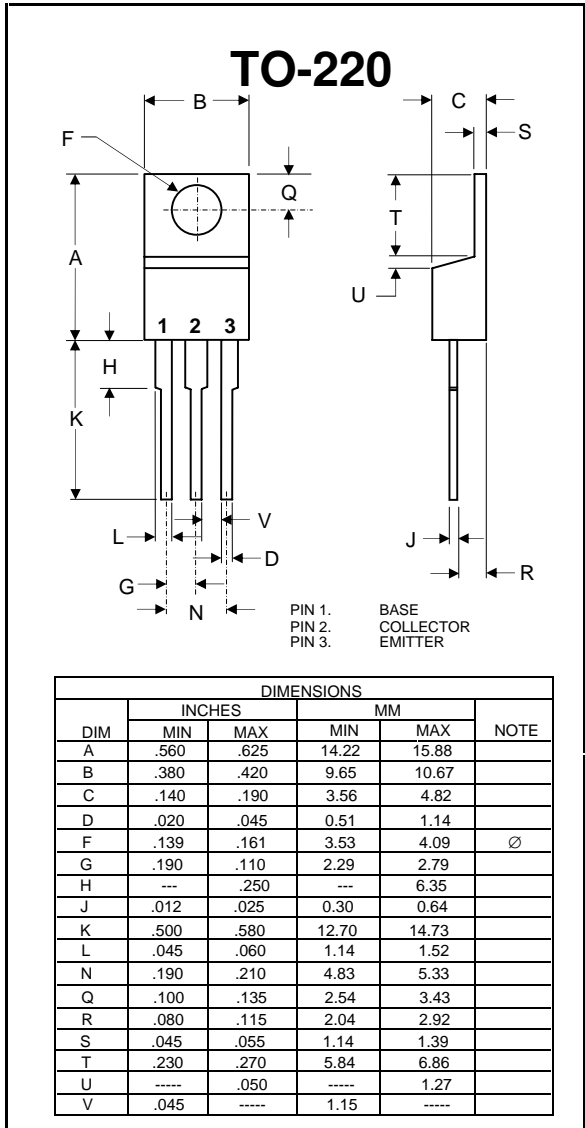
LIMITING VALUES

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{CESM}	Collector-emitter voltage peak value	V _{BE} =0V		100	V
V _{CEO}	Collector-emitter voltage (open base)			100	V
V _{EBO}	Emitter-base voltage (open collector)			5	V
I _C	Collector current (DC)			8	A
I _B	Base current(DC)			0.12	A
I _{BM}	Base current peak value				A
P _{TOT}	Total power dissipation	T _{mb} ≤25°C		75	W
T _{stg}	Storage temperature		-60	150	°C
T _j	Junction temperature		-60	150	°C

ELECTRICAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITION	MIN	MAX	UNIT
I _{CB0}	Collector-base cut-off current	V _{CB} =100V		20	μA
I _{EB0}	Emitter-base cut-off current	V _{EB} =5V		2.0	mA
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =100mA	100		V
V _{CEsat1}	Collector-emitter saturation voltage	I _C =3.0A, I _B =12mA		2.0	V
V _{CEsat2}	Collector-emitter saturation voltage	I _C =8A, I _B =80mA		4.0	V
h _{FE1}	DC current gain	I _C =3A, V _{CE} =4V	1000	20000	
h _{FE2}	DC current gain	I _C =8A, V _{CE} =4V	100		
f _T	Transition frequency at f=1MHz	I _C =0.5A, V _{CE} =4V			MHz
C _C	Collector capacitance at f=1MHz	V _{CB} =10V			pF
t _{ON}	On times	I _C =3A, I _B =0.3A, V _{CC} =30V			μs
t _S	Turn-off storage time	I _C =3A, I _B =0.3A, V _{CC} =30V			μs
t _F	Fall time	I _C =3A, I _B =0.3A, V _{CC} =30V			μs

Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7.





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Ordering Information :

Device	Packing
Part Number-BP	Bulk; 1 Kpcs/Box

Note : Adding "-HF" suffix for halogen free, eg. Part Number-BP-HF

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