

Silicon NPN Power Transistors

2SC4060

DESCRIPTION

- With TO-247 package
- Switching power transistor
- High voltage,high speed

PINNING

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

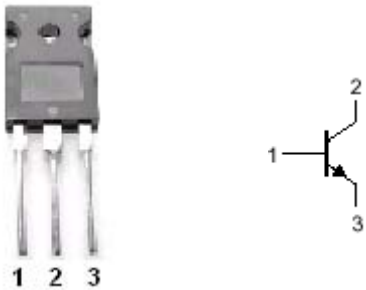


Fig.1 simplified outline (TO-247) and symbol

Absolute maximum ratings(Tc=25℃)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	600	V
V_{CEO}	Collector-emitter voltage	Open base	450	V
V_{CEX}	Collector-emitter voltage	$V_{EB}=5V$	600	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current (DC)		20	A
I_{CM}	Collector current-Peak		40	A
I_B	Base current		7	A
I_{BM}	Base current-Peak		14	A
P_D	Total power dissipation	$T_C=25^{\circ}C$	150	W
T_j	Junction temperature		150	℃
T_{stg}	Storage temperature		-55~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal resistance junction to case	0.83	℃/W

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-emitter sustaining voltage	I _C =0.2A; I _B =0	450			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =10A; I _B =2A			1.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =10A; I _B =2A			1.5	V
I _{CBO}	Collector cut-off current	At rated voltage			0.1	mA
I _{CEO}	Collector cut-off current					
I _{EBO}	Emitter cut-off current	At rated voltage			0.1	mA
h _{FE-1}	DC current gain	I _C =10A; V _{CE} =5V	10			
h _{FE-2}	DC current gain	I _C =1mA; V _{CE} =5V	5			
f _T	Transition frequency	I _C =2A; V _{CE} =10V		20		MHz

Switching times resistive load

t _{on}	Turn-on time	I _C =10A I _{B1} =2A; I _{B2} =4A V _{BB2} =4V, R _L =15 Ω			0.5	μ s
t _s	Storage time				2.0	μ s
t _f	Fall time				0.2	μ s

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PACKAGE OUTLINE

