

Silicon NPN Power Transistors

2N5067 2N5068 2N5069

DESCRIPTION

- With TO-3 package
- Complement to type 2N4901,2N4902,2N4903
- Low collector-emitter saturation voltage

APPLICATIONS

- For general-purpose switching and power amplifier applications.

PINNING

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector



Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings($T_a =$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2N5067	40	V
		2N5068	60	
		2N5069	80	
V_{CEO}	Collector-emitter voltage	2N5067	40	V
		2N5068	60	
		2N5069	80	
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current		5	A
I_{CM}	Collector current-peak		10	A
I_B	Base current		1	A
P_C	Collector power dissipation	$T_C=25$	87.5	W
T_j	Junction temperature		150	
T_{stg}	Storage temperature		-65~200	

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j-c}$	Thermal resistance junction to case	2.0	/W

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CHARACTERISTICS

T_j=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO}	Collector-emitter sustaining voltage	2N5067	40			V
		2N5068	60			
		2N5069	80			
V _{CEsat-1}	Collector-emitter saturation voltage	I _C =1A; I _B =0.1A			0.4	V
V _{CEsat-2}	Collector-emitter saturation voltage	I _C =5A; I _B =1A			1.5	V
V _{BE}	Base-emitter on voltage	I _C =1A; V _{CE} =2V			1.2	V
I _{CEO}	Collector cut-off current	V _{CE} =Rated V _{CEO} ; I _B =0			1.0	mA
I _{CBO}	Collector cut-off current	V _{CB} =Rated V _{CBO} ; I _E =0			0.1	mA
I _{CEx}	Collector cut-off current	V _{CE} = Rated V _{CEO} ; V _{BE(off)} =1.5V T _C =150			1.0 2.0	mA
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			1.0	mA
h _{FE-1}	DC current gain	I _C =1A; V _{CE} =2V	20		80	
h _{FE-2}	DC current gain	I _C =5A; V _{CE} =2V	7			
f _T	Transition frequency	I _C =1A; V _{CE} =10V	4			MHz

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PACKAGE OUTLINE

