

Silicon NPN Power Transistors

2N5671 2N5672

DESCRIPTION

- With TO-3 package
- High current ,high speed

APPLICATIONS

- Intended for high current and fast switching industrial applications

PINNING

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector



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

Absolute maximum ratings(Ta=)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	120	V
			150	
V_{CEO}	Collector-emitter voltage	Open base	90	V
			120	
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		30	A
I_B	Base current		10	A
P_D	Total Power Dissipation	$T_C=25$	140	W
T_j	Junction temperature		200	
T_{stg}	Storage temperature		-65~200	

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j-c}$	Thermal resistance junction to case	1.25	/W

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CHARACTERISTICS

Tj=25 unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	2N5671	$I_C=0.2A; I_B=0$	90			V
		2N5672		120			
V_{CEsat}	Collector-emitter saturation voltage		$I_C=15A; I_B=1.2A$			0.75	V
V_{BEsat}	Base-emitter saturation voltage		$I_C=15A; I_B=1.2A$			1.5	V
V_{BE}	Base-emitter on voltage		$I_C=15A; V_{CE}=5V$			1.6	V
I_{CEO}	Collector cut-off current		$V_{CE}=80V; I_B=0$			10	mA
I_{CEV}	Collector cut-off current	2N5671	$V_{CE}=110V; V_{BE(off)}=1.5V$			12	mA
		2N5672	$V_{CE}=135V; V_{BE(off)}=1.5V$			10	
		2N5671	$V_{CE}=100V; V_{BE(off)}=1.5V; T_C=150$			15	
		2N5672				10	
I_{EBO}	Emitter cut-off current		$V_{EB}=7V; I_C=0$			10	mA
h_{FE-1}	DC current gain		$I_C=15A; V_{CE}=2V$	20		100	
h_{FE-2}	DC current gain		$I_C=20A; V_{CE}=5V$	20			
f_T	Transistion frequency		$I_C=2A; V_{CE}=10V; f=1MHz$	40			MHz

Switching times

t_{on}	Turn-on time	$I_C=15A; I_{B1}=-I_{B2}=1.2A$ $V_{CC}=30V; t_p=0.1ms$			0.5	μs
t_s	Storage time				1.5	μs
t_f	Fall time				0.5	μs

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PACKAGE OUTLINE

