

Inchange Semiconductor

Product Specification

Silicon PNP Power Transistors

2N6246 2N6247 2N6248

DESCRIPTION

- With TO-3 package
- Low collector saturation voltage
- Excellent safe operating area
- High gain at high current

APPLICATIONS

- General-purpose types of switching and linear-amplifier applications

PINNING

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector



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

Absolute maximum ratings($T_a = ^\circ\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2N6246	-70	V
		2N6247	-90	
		2N6248	-110	
V_{CEO}	Collector-emitter voltage	2N6246	-60	V
		2N6247	-80	
		2N6248	-100	
V_{EBO}	Emitter-base voltage	Open collector	-5	V
I_C	Collector current		-15	A
I_B	Base current		-5	A
P_T	Total power dissipation	$T_C = 25^\circ\text{C}$	125	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-65~200	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j-c}$	Thermal resistance junction to case	1.4	$^\circ\text{C/W}$

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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	2N6246	I _C =-0.2A ; I _B =0	-60			V
		2N6247		-80			
		2N6248		-100			
V _{CEsat-1}	Collector-emitter saturation voltage	2N6246	I _C =-7A; I _B =-0.7A			-1.3	V
		2N6247	I _C =-6A; I _B =-0.6A				
		2N6248	I _C =-5A; I _B =-0.5A				
V _{CEsat-2}	Collector-emitter saturation voltage	2N6246	I _C =-15A; I _B =-3A			-2.5	V
		2N6247	I _C =-15A; I _B =-4A			-3.5	
		2N6248	I _C =-10A; I _B =-2A				
V _{BE}	Base-emitter on voltage	2N6246	I _C =-7A ; V _{CE} =-4V			-2.0	V
		2N6247	I _C =-6A ; V _{CE} =-4V			-1.8	
		2N6248	I _C =-5A ; V _{CE} =-4V			-1.8	
I _{CEO}	Collector cut-off current		V _{CE} =1/2Rated V _{CEO} ; I _B =0			-1.0	mA
I _{CEX}	Collector cut-off current	2N6246	V _{CE} =-65V; V _{BE} =-1.5V V _{CE} =-55V; V _{BE} =-1.5V T _C =150°C			-0.2 -5.0	mA
		2N6247	V _{CE} =-85V; V _{BE} =-1.5V V _{CE} =-70V; V _{BE} =-1.5V T _C =150°C			-0.2 -5.0	
		2N6248	V _{CE} =-100V; V _{BE} =-1.5V V _{CE} =-90V; V _{BE} =-1.5V T _C =150°C			-0.2 -5.0	
I _{EBO}	Emitter cut-off current	2N6246	V _{EB} =-5V; I _C =0			-5.0	mA
		2N6247				-1.0	
		2N6248					
h _{FE-1}	DC current gain	2N6246	I _C =-7A ; V _{CE} =-4V	20		100	
		2N6247	I _C =-6A ; V _{CE} =-4V				
		2N6248	I _C =-5A ; V _{CE} =-4V				
h _{FE-2}	DC current gain	2N6246	I _C =-15A ; V _{CE} =-4V	5			
		2N6247	I _C =-15A ; V _{CE} =-4V				
		2N6248	I _C =-10A ; V _{CE} =-4V				

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PACKAGE OUTLINE

