

Inchange Semiconductor

Product Specification

Silicon NPN Power Transistors

BDV67/67A/67B/67C/67D

DESCRIPTION

- With TO-3PN package
- Complement to type BDV66/66A/66B/66C/66D
- DARLINGTON
- High DC current gain

APPLICATIONS

- For use in audio output stages and general amplifier and switching applications.

PINNING

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

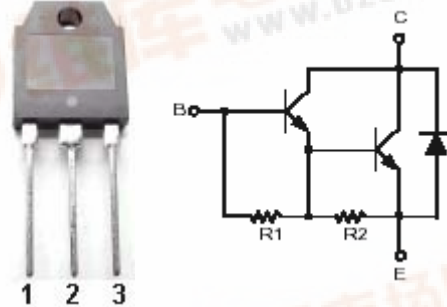


Fig.1 simplified outline (TO-3PN) and symbol

Absolute maximum ratings($T_c=25^\circ\text{C}$)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	BDV67	Open emitter	80	V
		BDV67A		100	
		BDV67B		120	
		BDV67C		140	
		BDV67D		160	
V_{CEO}	Collector-emitter voltage	BDV67	Open base	60	V
		BDV67A		80	
		BDV67B		100	
		BDV67C		120	
		BDV67D		150	
V_{EBO}	Emitter-base voltage		Open collector	5	V
I_C	Collector current			16	A
I_{CM}	Collector current-peak			20	A
I_B	Base current			0.5	A
P_C	Collector power dissipation	$T_c=25$		200	W
T_j	Junction temperature			150	
T_{stg}	Storage temperature			-65~150	

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CHARACTERISTICS

T_j=25 unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	BDV67	$I_C=30mA, I_B=0$	60			V
		BDV67A		80			
		BDV67B		100			
		BDV67C		120			
		BDV67D		150			
V_{CEsat}	Collector-emitter saturation voltage		$I_C=10A, I_B=40mA$			2.0	V
V_{BE}	Base-emitter on voltage		$I_C=10A ; V_{CE}=3V$			2.5	V
I_{CBO}	Collector cut-off current		$V_{CB}=V_{CB0max}, I_E=0$ $V_{CB}=1/2V_{CB0max}; T_j=150$			1.0 4.0	mA
I_{CEO}	Collector cut-off current		$V_{CE}=1/2V_{CE0max}, I_B=0$			1	mA
I_{EBO}	Emitter cut-off current		$V_{EB}=5V; I_C=0$			5	mA
h_{FE-1}	DC current gain		$I_C=1A ; V_{CE}=3V$		3000		
h_{FE-2}	DC current gain		$I_C=10A ; V_{CE}=3V$	1000			
h_{FE-3}	DC current gain		$I_C=16A ; V_{CE}=3V$		1000		
C_C	Collector capacitance		$I_E=0 ; V_{CB}=10V; f=1MHz$		300		pF
V_F	Diode forward voltage		$I_E=10A$			3.0	V
t_{on}	Turn-on time		$I_C = 10 A, I_{B1} = -I_{B2}=40 mA$ $V_{CC} = 12V$		1.0		μ s
t_{off}	Turn-off time				3.5		μ s

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-mb}	Thermal resistance junction to mounting base	0.625	K/W

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PACKAGE OUTLINE

