Silicon NPN Power Transistors BDV65/65A/65B/65C

DESCRIPTION

·With TO-3PN package
·Complement to type BDV64/64A/64B/64C
·DARLINGTON
·High DC current gain

APPLICATIONS

·For use in general purpose amplifier applications.

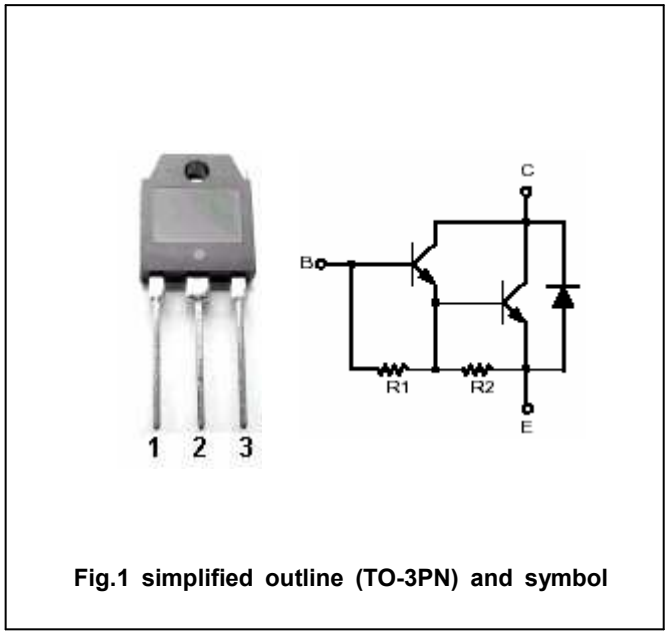

Fig.1 simplified outline (TO-3PN) and symbol

PINNING

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

Absolute maximum ratings(Tc=25□)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	BDV65	Open emitter	60	V
		BDV65A		80	
		BDV65B		100	
		BDV65C		120	
V_{CEO}	Collector-emitter voltage	BDV65	Open base	60	V
		BDV65A		80	
		BDV65B		100	
		BDV65C		120	
V_{EBO}	Emitter-base voltage		Open collector	5	V
I_C	Collector current			12	A
I_{CM}	Collector current-peak			15	A
I_B	Base current			0.5	A
P_C	Collector power dissipation		T_C=25□	125	W
			T_a=25□	3.5	
T_j	Junction temperature			150	□
T_{stg}	Storage temperature			-65~150	□

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CHARACTERISTICS

Tj=25□ unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	BDV65	I_C=30mA, I_B=0	60			V
		BDV65A		80			
		BDV65B		100			
		BDV65C		120			
V_{CEsat}	Collector-emitter saturation voltage		I_C=5A ,I_B=20mA			2.0	V
V_{BE}	Base-emitter on voltage		I_C=5A ; V_{CE}=4V			2.5	V
I_{CBO}	Collector cut-off current	BDV65	V_{CB}=60V, I_E=0 V_{CB}=30V, I_E=0;T_C=150□			0.4 2.0	mA
		BDV65A	V_{CB}=80V, I_E=0 V_{CB}=40V, I_E=0;T_C=150□			0.4 2.0	
		BDV65B	V_{CB}=100V, I_E=0 V_{CB}=50V, I_E=0;T_C=150□			0.4 2.0	
		BDV65C	V_{CB}=120V, I_E=0 V_{CB}=60V, I_E=0;T_C=150□			0.4 2.0	
I_{CEO}	Collector cut-off current	BDV65	V_{CE}=30V, I_B=0			2	mA
		BDV65A	V_{CE}=40V, I_B=0				
		BDV65B	V_{CE}=50V, I_B=0				
		BDV65C	V_{CE}=60V, I_B=0				
I_{EBO}	Emitter cut-off current		V_{EB}=5V; I_C=0			5	mA
h_{FE}	DC current gain		I_C=5A ; V_{CE}=4V	1000			
V_{EC}	Diode forward voltage		I_E=10A			3.5	V

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal resistance junction to case	1.0	□/W

PACKAGE OUTLINE

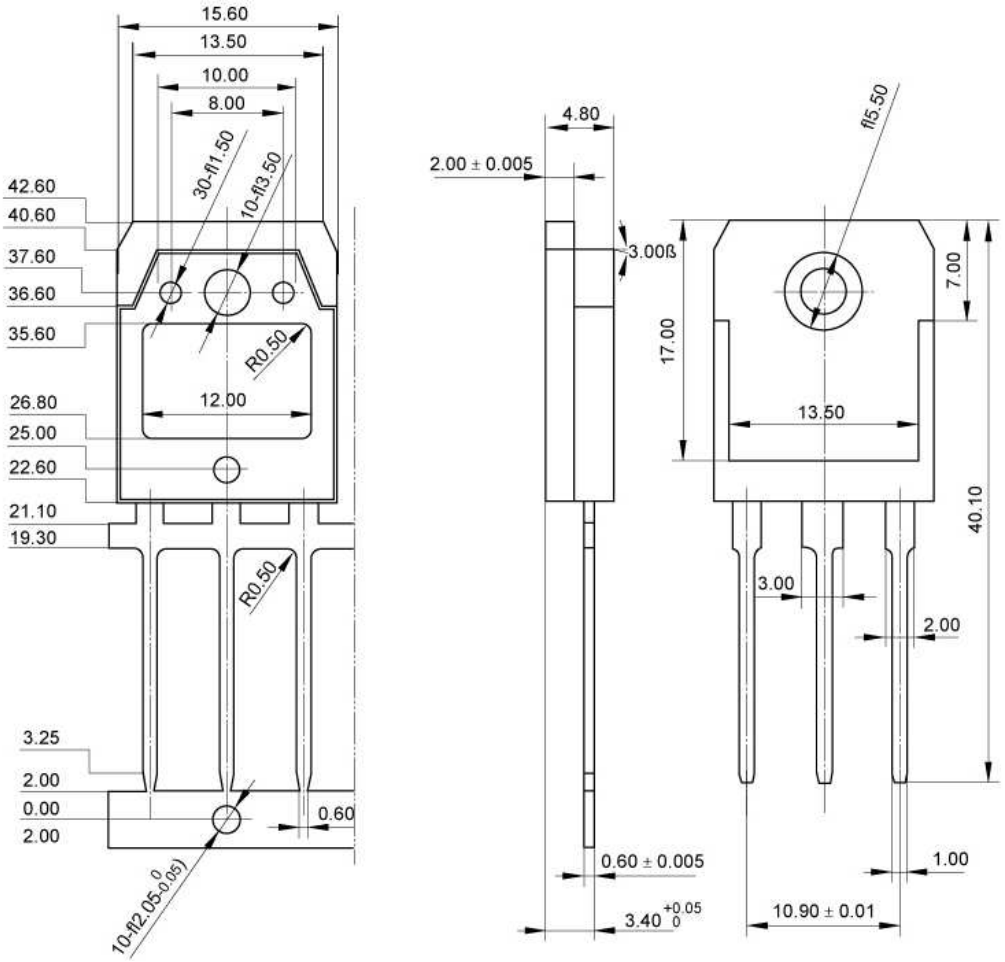

Fig.2 Outline dimensions(unindicated tolerance:±0.1mm)