Silicon PNP Power Transistors TIP36/36A/36B/36C

DESCRIPTION

With TO-3PN package

·Complement to type TIP35/35A/35B/35C

·DC current gain h_{FE}=25(Min)@I_C=-1.5A

APPLICATIONS

·Designed for use in general purpose power amplifier and switching applications.

PINNING

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

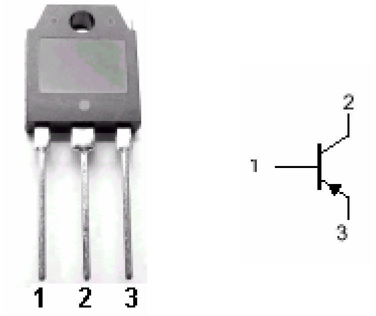

Fig.1 simplified outline (TO-3PN) and symbol

ABSOLUTE MAXIMUM RATINGS (T_C=□)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	TIP36	Open emitter	-40	V
		TIP36A		-60	
		TIP36B		-80	
		TIP36C		-100	
V_{CEO}	Collector-emitter voltage	TIP36	Open base	-40	V
		TIP36A		-60	
		TIP36B		-80	
		TIP36C		-100	
V_{EBO}	Emitter-base voltage		Open collector	-5	V
I_C	Collector current			-25	A
I_{CM}	Collector current-peak			-40	A
I_B	Base current			-5	A
P_C	Collector power dissipation		T_C=25□	125	W
T_j	Junction temperature			150	□
T_{stg}	Storage temperature			-65~150	□

THERMAL CHARACTERISTICS

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

CHARACTERISTICS

Tj=25℃ unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	TIP36	I_C=-30mA ;I_B=0	-40			V
		TIP36A		-60			
		TIP36B		-80			
		TIP36C		-100			
$V_{CE(sat)-1}$	Collector-emitter saturation voltage		I_C=-15A ;I_B=-1.5A			-1.8	V
$V_{CE(sat)-2}$	Collector-emitter saturation voltage		I_C=-25A; I_B=-5A			-4.0	V
V_{BE-1}	Base-emitter on voltage		I_C=-15A ; V_{CE}=-4V			-2.0	V
V_{BE-2}	Base-emitter on voltage		I_C=-25A ; V_{CE}=-4V			-4.0	V
I_{CEO}	Collector cut-off current	TIP36/36A	V_{CE}=-30V; I_B=0			-1.0	mA
		TIP36B/36C	V_{CE}=-60V; I_B=0				
I_{CES}	Collector cut-off current	TIP36	V_{CE}=-40V;V_{EB}=0			-0.7	mA
		TIP36A	V_{CE}=-60V;V_{EB}=0				
		TIP36B	V_{CE}=-80V;V_{EB}=0				
		TIP36C	V_{CE}=-100V;V_{EB}=0				
I_{EBO}	Emitter cut-off current		V_{EB}=-5V; I_C=0			-1.0	mA
h_{FE-1}	DC current gain		I_C=-1.5A ; V_{CE}=-4V	25			
h_{FE-2}	DC current gain		I_C=-15A ; V_{CE}=-4V	15		75	
f_T	Transition frequency		I_C=-1A ; V_{CE}=-10V	3			MHz

PACKAGE OUTLINE

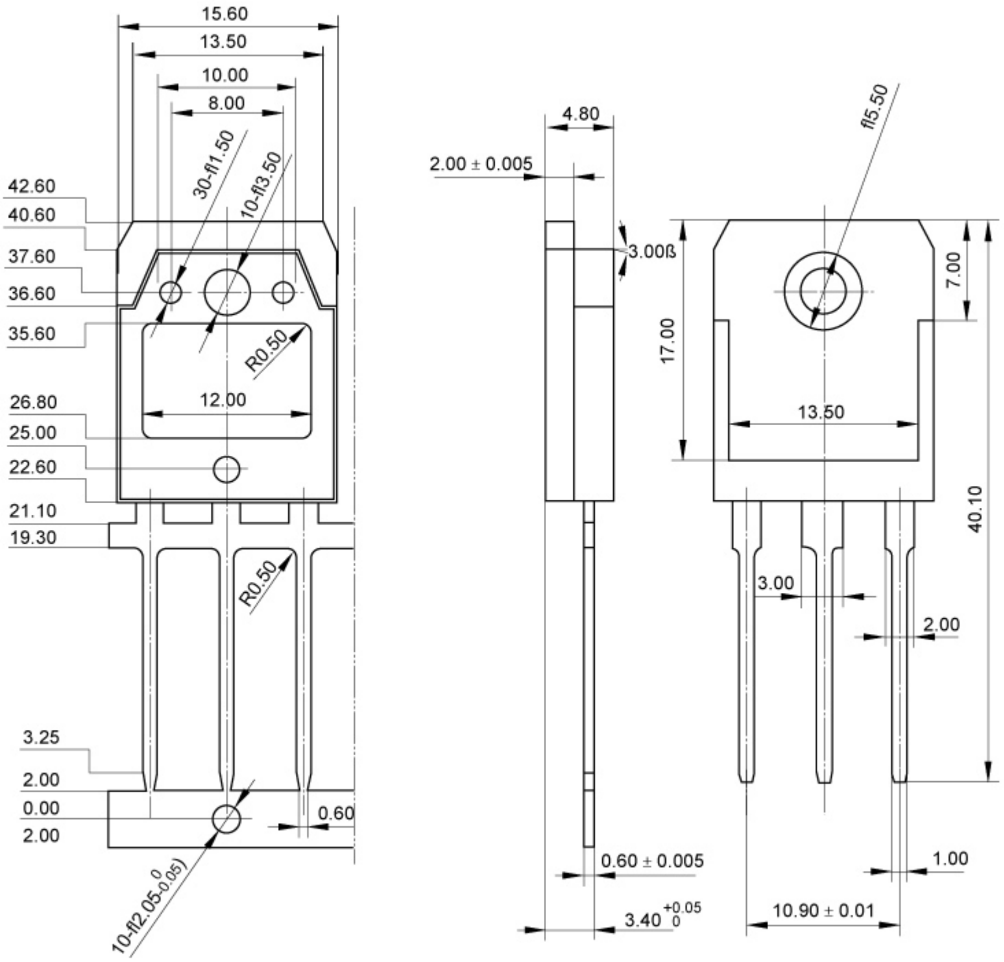

Fig.2 outline dimensions (unindicated tolerance:±0.1mm)

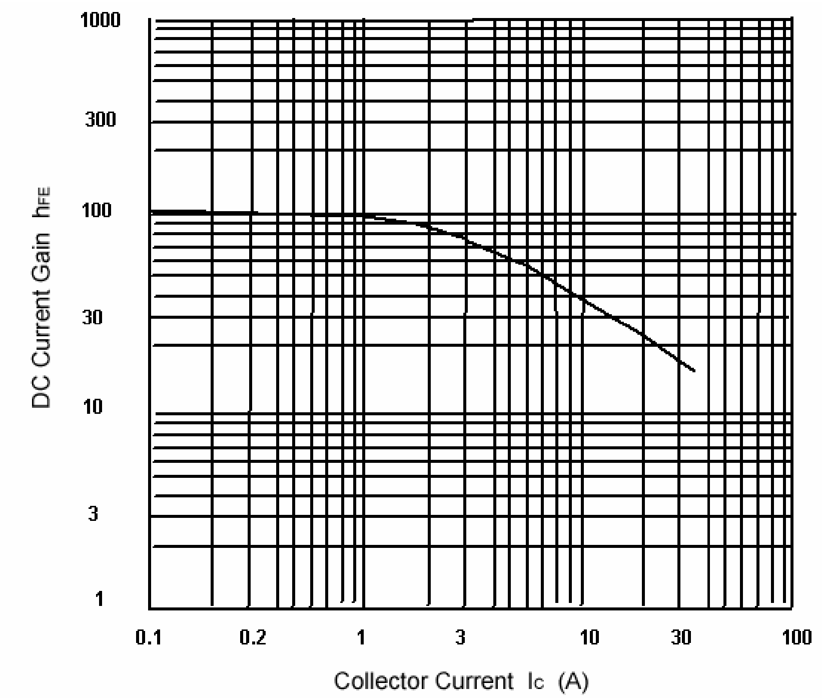

Fig.3 DC current Gain

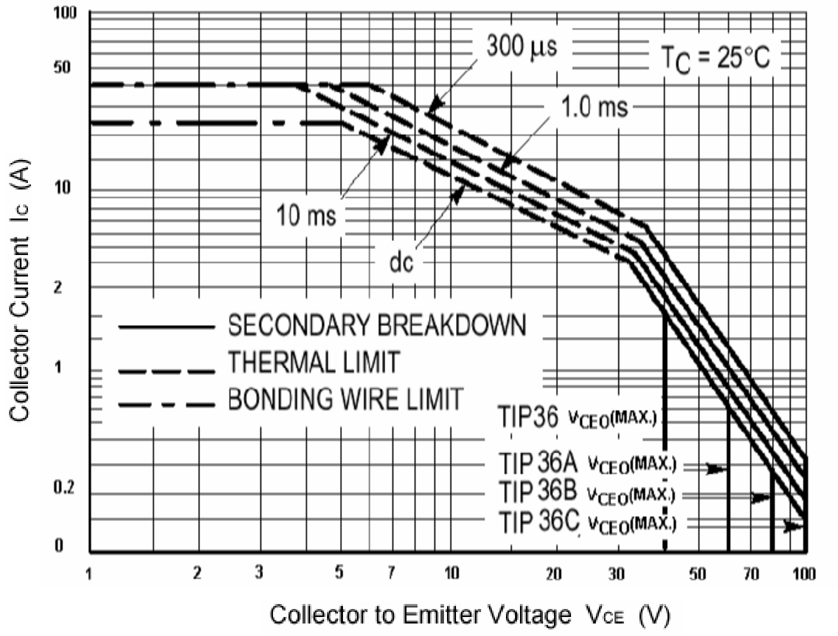

Fig.4 Safe Operating Area