

DESCRIPTION

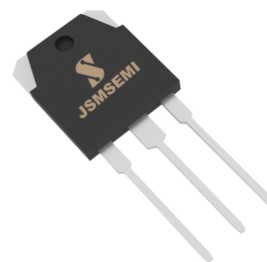
- With TO-247 package
- Complement to type TIP36/36A/36B/36C
- DC current gain $h_{FE}=25(\text{Min})@I_C=1.5\text{A}$

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


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

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	TIP35	Open emitter	40	V
		TIP35A		60	
		TIP35B		80	
		TIP35C		100	
V_{CEO}	Collector-emitter voltage	TIP35	Open base	40	V
		TIP35A		60	
		TIP35B		80	
		TIP35C		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		$T_C=25^{\circ}\text{C}$	125	W
T_j	Junction temperature			150	$^{\circ}\text{C}$
T_{stg}	Storage temperature			-65~150	$^{\circ}\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R_{thj-c}	Thermal resistance junction to case	1.0	$^{\circ}\text{C/W}$

CHARACTERISTICS
T_j=25°C unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(SUS)CEO}$	Collector-emitter sustaining voltage	TIP35	$I_C=30mA; I_B=0$	40			V
		TIP35A		60			
		TIP35B		80			
		TIP35C		100			
$V_{CEsat-1}$	Collector-emitter saturation voltage		$I_C=15A; I_B=1.5A$			1.8	V
$V_{CEsat-2}$	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	TIP35/35A	$V_{CE}=30V; I_B=0$			1.0	mA
		TIP35B/35C	$V_{CE}=60V; I_B=0$				
I_{CES}	Collector cut-off current	TIP35	$V_{CE}=40V; V_{EB}=0$			0.7	mA
		TIP35A	$V_{CE}=60V; V_{EB}=0$				
		TIP35B	$V_{CE}=80V; V_{EB}=0$				
		TIP35C	$V_{CE}=100V; V_{EB}=0$				
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

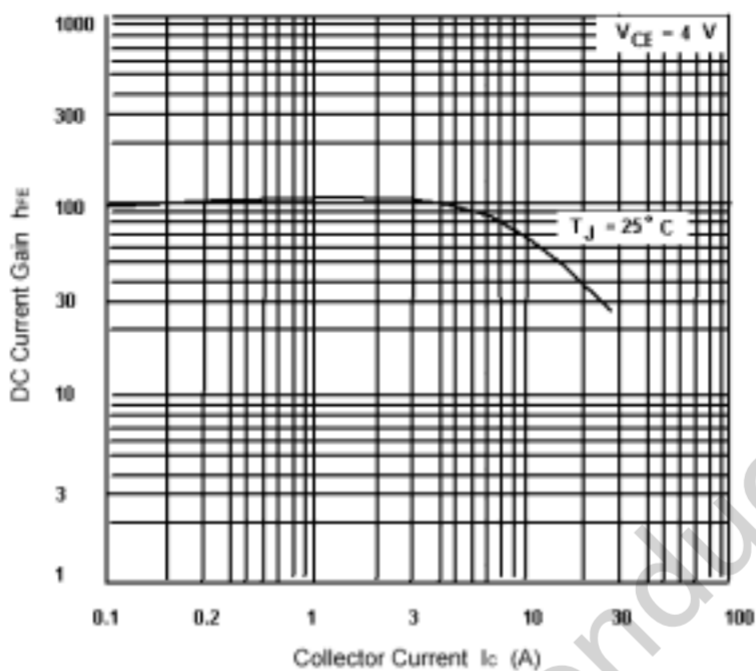


Fig.3 DC current Gain

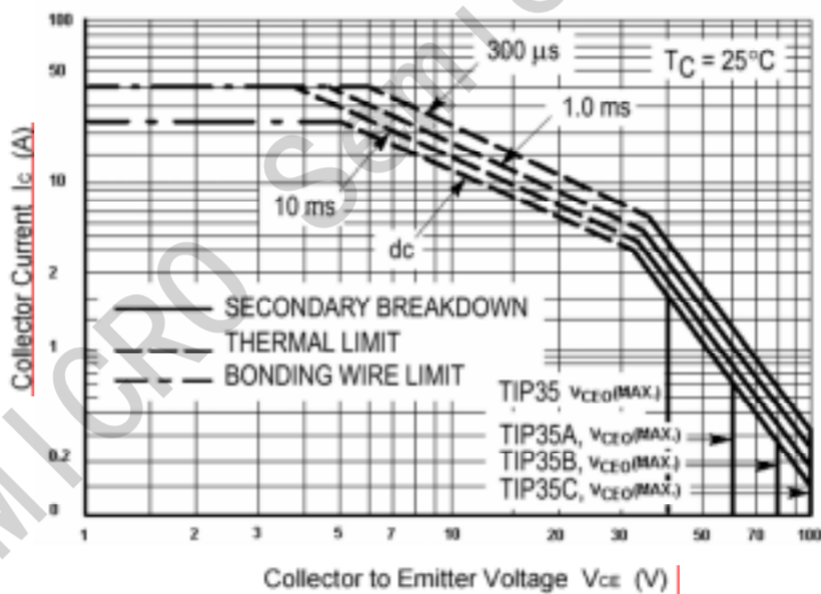
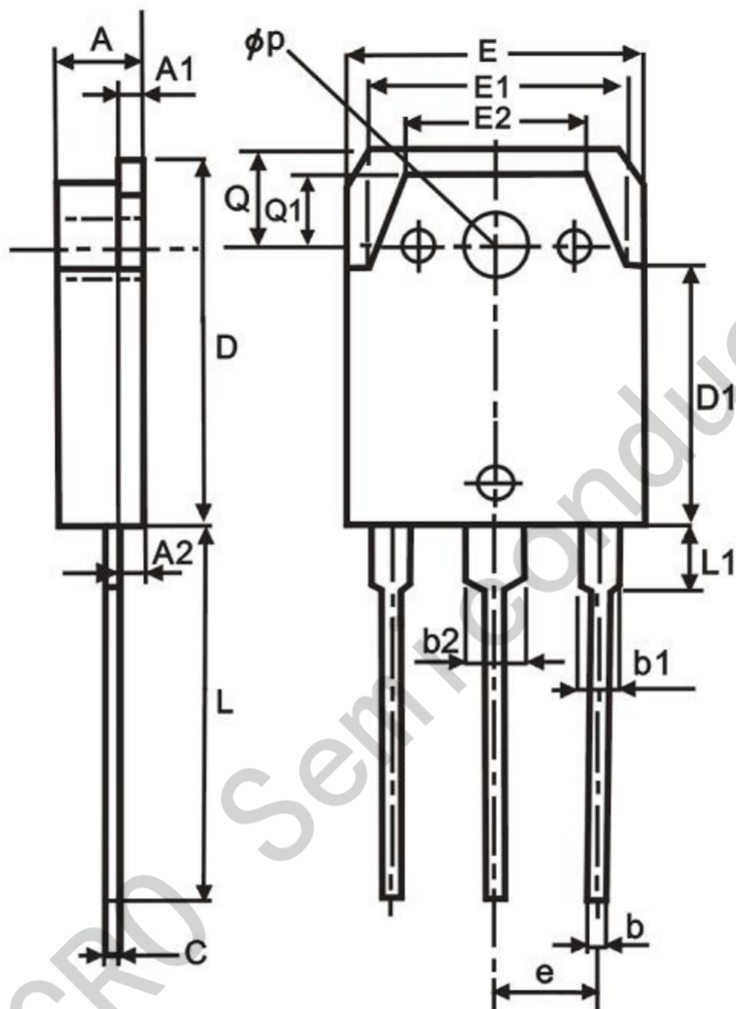


Fig.4 Safe Operating Area

Package Information

TO-247



UNIT: mm

SYMBOL	min	nom	max	SYMBOL	min	nom	max
A	4.40		5.10	E	15.20		16.20
A1	1.40	1.50	1.70	E1		13.60	
A2	2.10	2.40	2.70	E2		9.60	
b	0.80	1.00	1.20	e	5.15	5.45	5.75
b1	1.90		2.30	L	19.00	20.00	21.00
b2	2.90		3.30	L1	2.50		3.50
C	0.45	0.60	0.75	Q		5.10	
D	19.40	19.90	20.40	Q1		3.90	
D1		13.90					