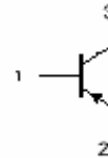


DESCRIPTION

- With TO-3 package
 - Complement to type MJ15022; MJ15024
 - Excellent safe operating area
 - High DC current gain
- $h_{FE} = 15$ (Min) @ $I_C = 8$ Adc


APPLICATIONS

- Designed for high power audio, disk head positioners and other linear applications

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

Absolute maximum ratings(Ta=)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	MJ15023	Open emitter	-350	V
		MJ15025		-400	
V_{CEO}	Collector-emitter voltage	MJ15023	Open base	-200	V
		MJ15025		-250	
V_{EBO}	Emitter-base voltage		Open collector	-5	V
I_C	Collector current			-16	A
I_{CM}	Collector current-peak			-30	A
I_B	Base current			-5	A
P_D	Total power dissipation		$T_C=25$	250	W
T_j	Junction temperature			150	
T_{stg}	Storage temperature			-65~200	

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal resistance junction to case	0.70	/W

CHARACTERISTICS

 T_j=25 unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-emitter sustaining voltage	MJ15023	I _C =0.1A ; I _B =0	-200			V
		MJ15025		-250			
V _{CEsat-1}	Collector-emitter saturation voltage		I _C =8A ; I _B =0.8A			-1.4	V
V _{CEsat-2}	Collector-emitter saturation voltage		I _C =16A ; I _B =3.2A			-4.0	V
V _{BE}	Base-emitter on voltage		I _C =8A ; V _{CE} =4V			-2.2	V
I _{CEO}	Collector cut-off current	MJ15023	V _{CE} =150V ; I _B =0			-0.5	mA
		MJ15025	V _{CE} =200V ; I _B =0				
I _{CEX}	Collector cut-off current	MJ15023	V _{CE} =200V ; V _{BE(off)} =1.5V			-0.25	mA
		MJ15025	V _{CE} =250V ; V _{BE(off)} =1.5V				
I _{EBO}	Emitter cut-off current		V _{EB} =5V ; I _C =0			-0.5	mA
h _{FE-1}	DC current gain		I _C =8A ; V _{CE} =4V	15		60	
h _{FE-2}	DC current gain		I _C =16A ; V _{CE} =4V	5			
I _{s/b}	Second breakdown collector current with base forward biased		V _{CE} =50Vdc,t=0.5 s, V _{CE} =80Vdc,t=0.5 s,Nonrepetitive	-5.0 -2.0			A
C _{OB}	Output capacitance		I _E =0 ; V _{CB} =10V ; f=1.0MHz			500	pF
f _T	Transition frequency		I _C =1A ; V _{CE} =10V ; f=1.0MHz	4			MHz

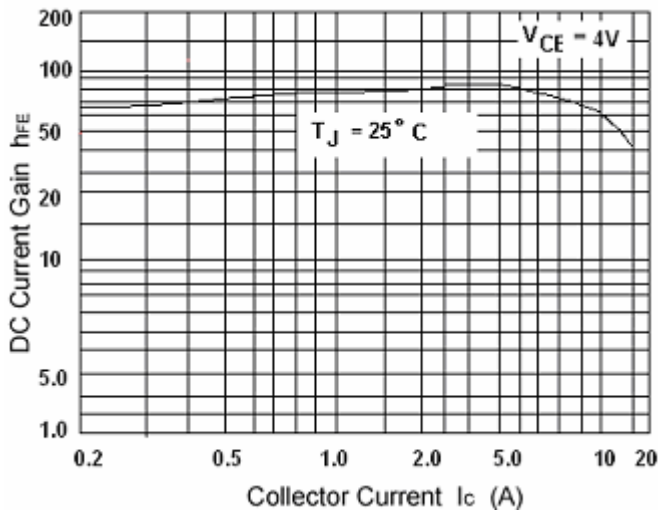


Fig.3 DC current Gain

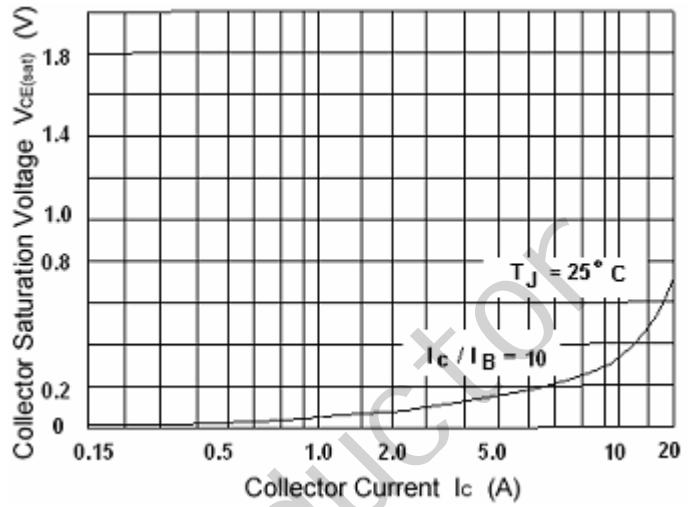


Fig.4 Collector-Emitter Saturation Voltage

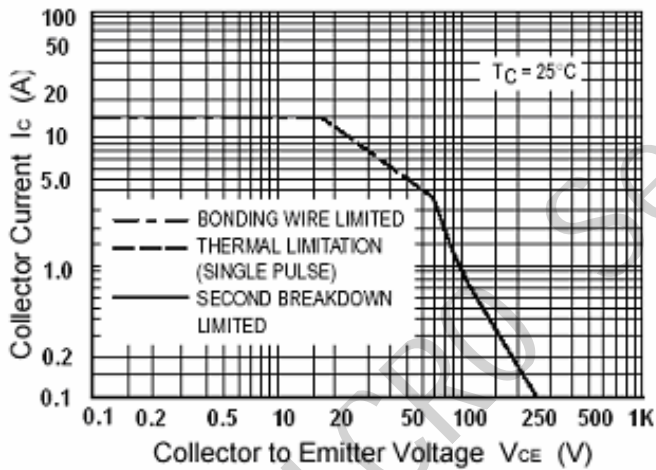


Fig.5 Safe Operating Area

PACKAGE OUTLINE

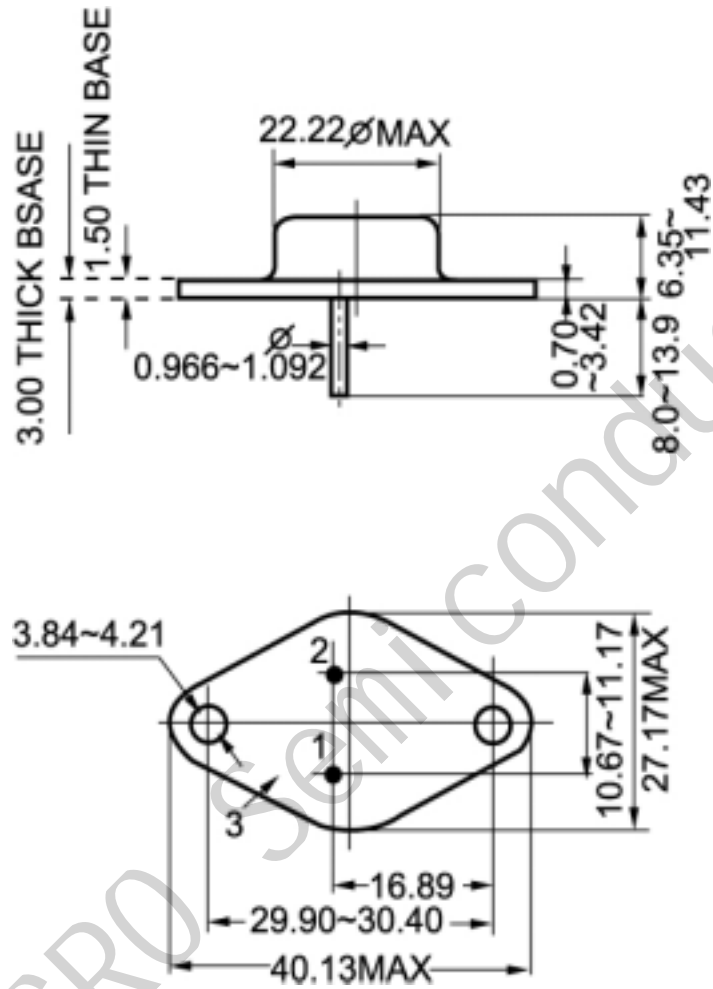


Fig.2 outline dimensions (unindicated tolerance: ± 0.1 mm)