

Silicon PNP Power Transistors

MJ15023 MJ15025

DESCRIPTION

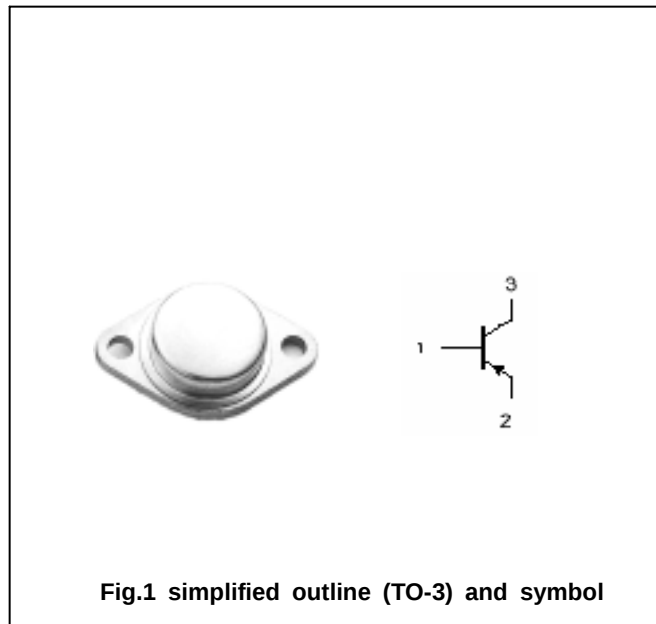
- With TO-3 package
 - Complement to type MJ15022; MJ15024
 - Excellent safe operating area
 - High DC current gain
- $h_{FE} = 15$ (Min) @ $I_C = 8$ Adc

APPLICATIONS

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

PINNING(see Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

Absolute maximum ratings($T_a =$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	MJ15023 -350	V
			MJ15025 -400	
V_{CEO}	Collector-emitter voltage	Open base	MJ15023 -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

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CHARACTERISTICS

Tj=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		$V_{CE}=-50Vdc, t=0.5s$ $V_{CE}=-80Vdc, t=0.5s, \text{Nonrepetitive}$	-5.0 -2.0			A
C_{OB}	Output capacitance		$I_E=0; V_{CB}=-10V; f=1.0MHz$			600	pF
f_T	Transition frequency		$I_C=-1A; V_{CE}=-10V; f=1.0MHz$	4			MHz

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PACKAGE OUTLINE

