

Silicon NPN Power Transistors

2N5758 2N5759 2N5760

DESCRIPTION

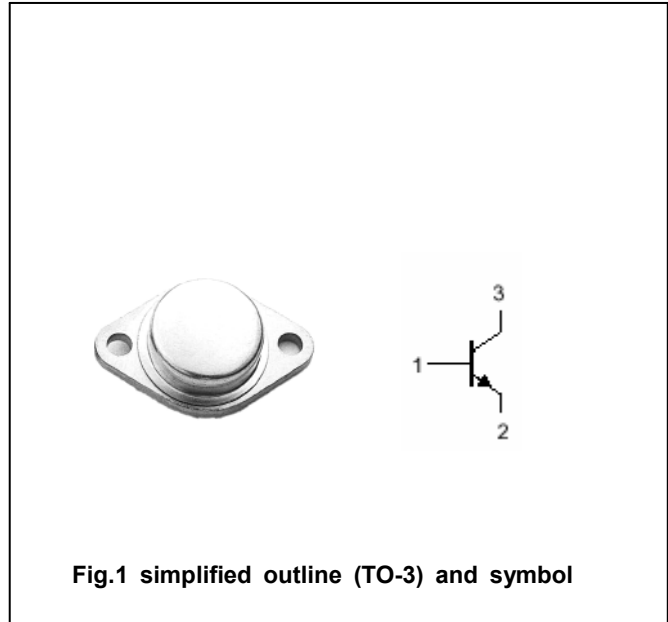
- With TO-3 package
- Low collector saturation voltage
- Excellent safe operating area

APPLICATIONS

- For use in high power audio amplifier applications and high voltage switching regulator circuits

PINNING

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

Absolute maximum ratings($T_a = \square$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2N5758	100	V
		2N5759	120	
		2N5760	140	
V_{CEO}	Collector-emitter voltage	2N5758	100	V
		2N5759	120	
		2N5760	140	
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		6	A
I_{CM}	Collector current-peak		10	A
I_B	Base current		4	A
P_D	Total Power Dissipation	$T_C = 25 \square$	150	W
T_j	Junction temperature		150	\square
T_{stg}	Storage temperature		-65~200	\square

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j-c}$	Thermal resistance junction to case	1.17	\square/W

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CHARACTERISTICS

T_j=25 °C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT	
V _{CE0(SUS)}	Collector-emitter sustaining voltage	2N5758	100			V	
		2N5759	120				
		2N5760	140				
V _{CEsat-1}	Collector-emitter saturation voltage	I _C =3A; I _B =0.3A			1.0	V	
V _{CEsat-2}	Collector-emitter saturation voltage	I _C =6A; I _B =1.2A			2.0	V	
V _{BE}	Base-emitter on voltage	I _C =3A; V _{CE} =2V			1.5	V	
I _{CEO}	Collector cut-off current	2N5758	V _{CE} =50V; I _B =0			1.0	mA
		2N5759	V _{CE} =60V; I _B =0				
		2N5760	V _{CE} =70V; I _B =0				
I _{CEX}	Collector cut-off current	V _{CE} =ratedV _{CB} ; V _{BE(off)} =1.5V T _C =150 °C			1.0 5.0	mA	
I _{CBO}	Collector cut-off current	V _{CE} =ratedV _{CB} ; I _B =0			1.0	mA	
I _{EBO}	Emitter cut-off current	V _{EB} =7V; I _C =0			1.0	mA	
h _{FE-1}	DC current gain	2N5758	I _C =3A; V _{CE} =2V	25		100	
		2N5759		20		80	
		2N5760		15		60	
h _{FE-2}	DC current gain	I _C =6A; V _{CE} =2V	5.0				
C _{OB}	Output capacitance	I _E =0; V _{CB} =10V; f=0.1MHz			300	pF	
f _T	Transition frequency	I _C =0.5A; V _{CE} =20V	1.0			MHz	

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PACKAGE OUTLINE

