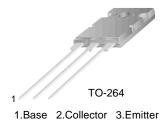


FJL4315

Audio Power Amplifier

- High Current Capability : I_C=15A
- High Power Dissipation
- Wide S.O.A
- Complement to FJL4215



NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings $T_C=25^{\circ}C$ unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	230	V
V_{CEO}	Collector-Emitter Voltage	230	V
V _{EBO}	Emitter-Base Voltage	5	V
I _C	Collector Current(DC)	15	Α
I _B	Base Current	1.5	Α
P _C	Collector Dissipation (T _C =25°C)	150	W
T _J	Junction Temperature	150	°C
T _{STG}	Storage Temperature	- 50 ~ 150	°C

Electrical Characteristics $T_C=25^{\circ}C$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Тур.	Max.	Units
BV _{CBO}	Collector-Base Breakdown Voltage	$I_C=5mA$, $I_E=0$	230			V
BV _{CEO}	Collector-Emitter Breakdown Voltage	I _C =10mA, R _{BE} =∞	230			V
BV _{EBO}	Emitter-Base Breakdown Voltage	$I_E=5mA$, $I_C=0$	5			V
I _{CBO}	Collector Cut-off Current	V_{CB} =230V, I_{E} =0			5.0	uA
I _{EBO}	Emitter Cut-off Current	V_{EB} =5V, I_C =0			5.0	uA
h _{FE1}	* DC Current Gain	V _{CE} =5V, I _C =1A	55		160	
h _{FE2}	DC Current Gain	V _{CE} =5V, I _C =7A	35	60		
V _{CE} (sat)	Collector-Emitter Saturation Voltage	I _C =8A, I _B =0.8A		0.4	3.0	V
V _{BE} (on)	Base-Emitter On Voltage	V _{CE} =5V, I _C =7A		1.0	1.5	V
f _T	Current Gain Bandwidth Product	V _{CE} =5V, I _C =1A		30		MHz
C _{ob}	Output Capacitance	V _{CB} =10V, f=1MHz		200		pF
* Pulse Test : PW=2	Ous .	•	•	•	•	•

h_{FE} Classification

Classification	R	0	
h _{FE1}	55 ~ 110	80 ~ 160	

Typical Characteristics

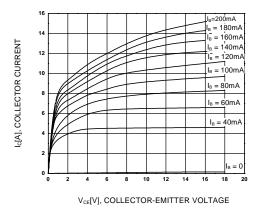


Figure 1. Static Characteristic

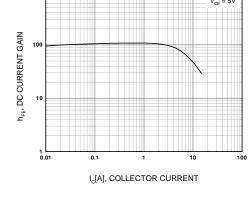


Figure 2. DC current Gain

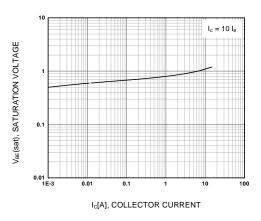


Figure 3. Base-Emitter Saturation Voltage

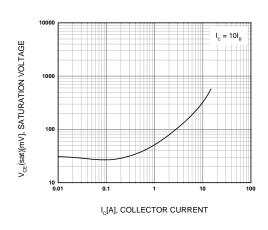


Figure 4. Collector-Emitter Saturation Voltage

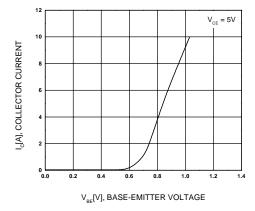
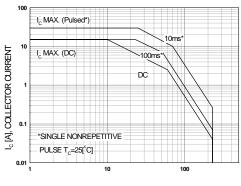


Figure 5. Base-Emitter On Voltage



 $\mathbf{V}_{\mathrm{CE}}\,[\mathrm{V}],\,\mathrm{COLLECTOR\text{-}EMITTER}\,\mathrm{VOLTAGE}$

Figure 6. Safe Operating Area

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Typical Characteristics

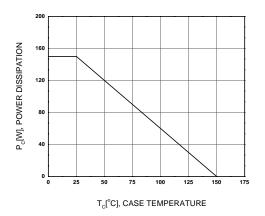


Figure 7. Power Derating

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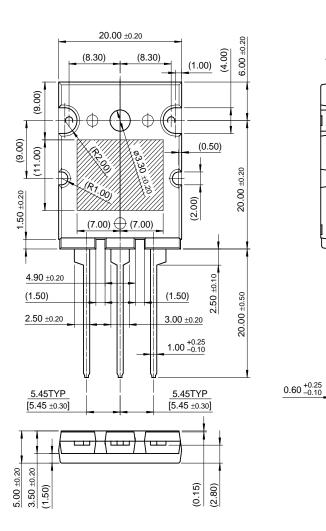
(2.00)

(1.50)

2.80 ±0.30

Package Dimensions

TO-264



Dimensions in Millimeters

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CoolFET™	FASTr™	MicroFET™	PowerTrench [®]	SuperSOT™-6
CROSSVOLT™	FRFET™	MicroPak™	QFET™	SuperSOT™-8
DOME™	GlobalOptoisolator™	MICROWIRE™	QS™	SyncFET™
EcoSPARK™	GTO™	MSX™	QT Optoelectronics™	TinyLogic [®]
E ² CMOS™	HiSeC™	MSXPro™	Quiet Series™	TruTranslation™
EnSigna™	I^2C^{TM}	OCX^{TM}	RapidConfigure™	UHC™
Across the board.	Around the world.™	OCXPro™	RapidConnect™	UltraFET [®]
The Power Franchise™		OPTOLOGIC [®]	SILENT SWITCHER®	VCX™
Programmable Active Droop™		OPTOPLANAR™	SMART START™	

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