

■ Product characteristics

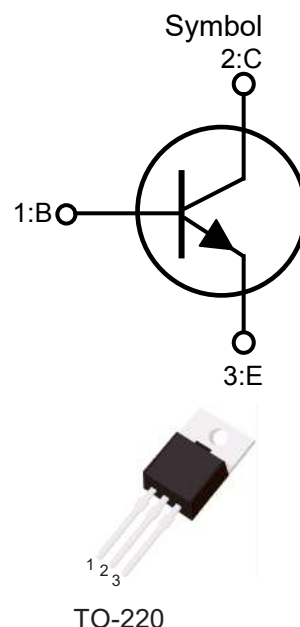
V_{CBO}	250V
V_{CEO}	250V
I_C	-8A

■ Applications

High-Fidelity Audio Output Amplifier
General Purpose Power Amplifier

■ Features

High Voltage : $V_{CEO} = 250V$
Complement to MJE15033



■ Absolute Maximum Ratings ($T_c = 25^\circ C$ unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V_{CBO}	250	V
Collector-Emitter Voltage	V_{CEO}	250	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	8	A
Base Current	I_B	2	A
Collector Power Dissipation	P_D	50	W
Junction Temperature	T_J	+150	$^\circ C$
Storage Temperature Range	T_{STG}	-55 ~ +150	$^\circ C$

■ Electrical Characteristics ($T_c = 25^\circ C$ unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C = 10mA, I_B = 0$	250			V
Base -Emitter Voltage	V_{BE}	$V_{CE} = 5V, I_C = 500mA$	5			V
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C = 1A, I_B = 100mA$			0.5	V
Base -Emitter OnVoltage	$V_{BE(on)}$	$I_C = 1A, V_{CE} = 5V$			1	V
Collector Cut-off Current	I_{CBO}	$V_{CB} = 250V, I_E = 0$			10	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = 5V, I_C = 0$			10	μA
DC Current Gain	h_{FE}	$V_{CE} = 5V, I_C = -500mA$	70			
		$V_{CE} = 5V, I_C = 1A$	50			
		$V_{CE} = 5V, I_C = 2A$	10			
Transition Frequency	f_T	$V_{CE} = 10V, I_C = 500mA$		30		MHz

■ Typical Performance Characteristics

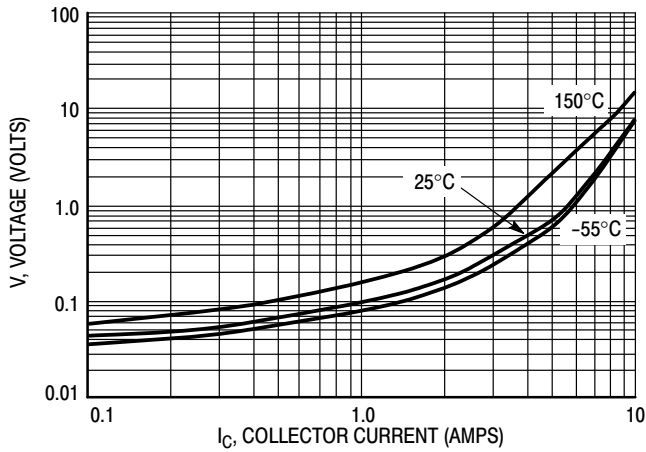


Figure 1. $V_{CE(sat)}$ $I_C/I_B = 20$

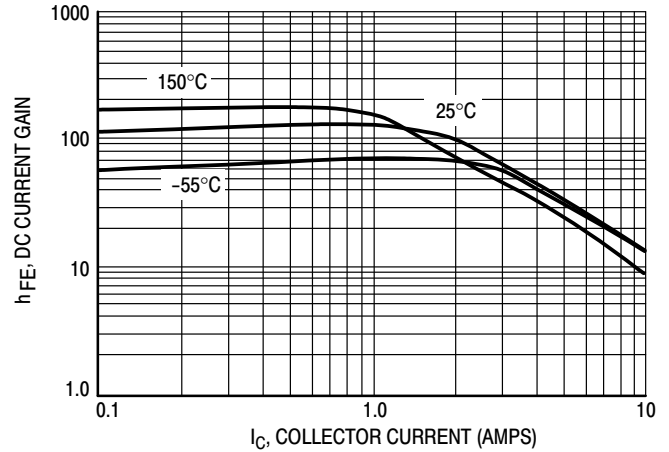


Figure 2. $V_{CE} = 5$ V DC Current Gain

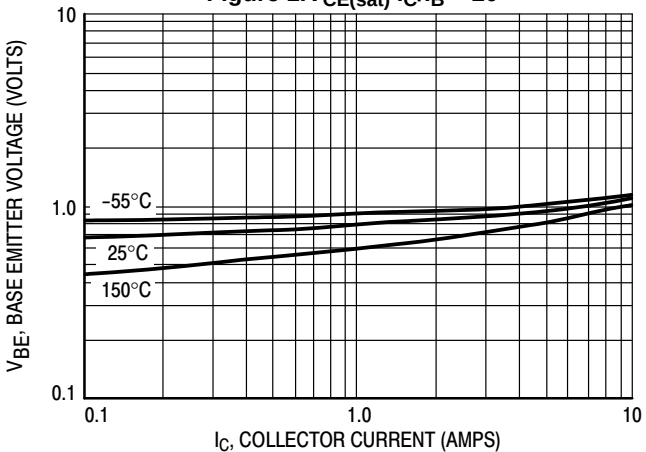


Figure 3. $V_{BE(sat)}$ $I_C/I_B = 10$

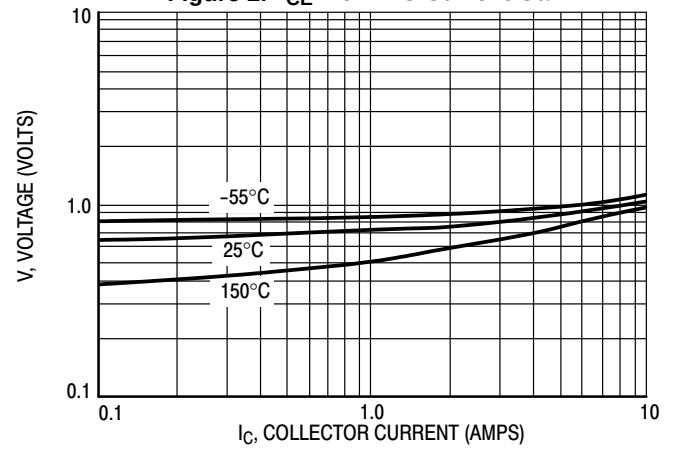


Figure 4. $V_{CE} = 5$ V $V_{BE(on)}$ Curve

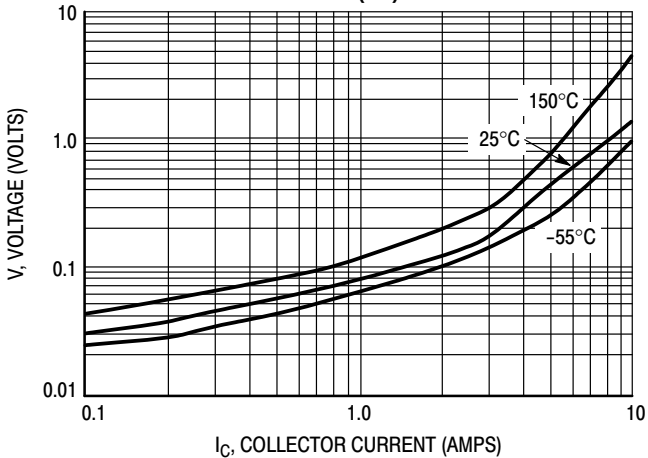


Figure 5. $V_{CE(sat)}$ $I_C/I_B = 10$

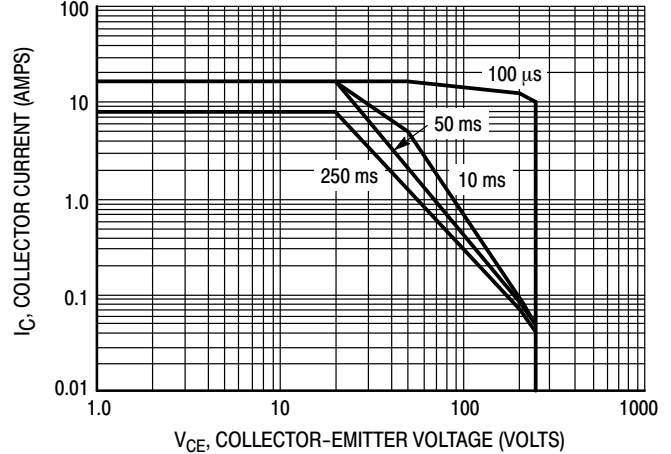


Figure 6. Safe Operating Area

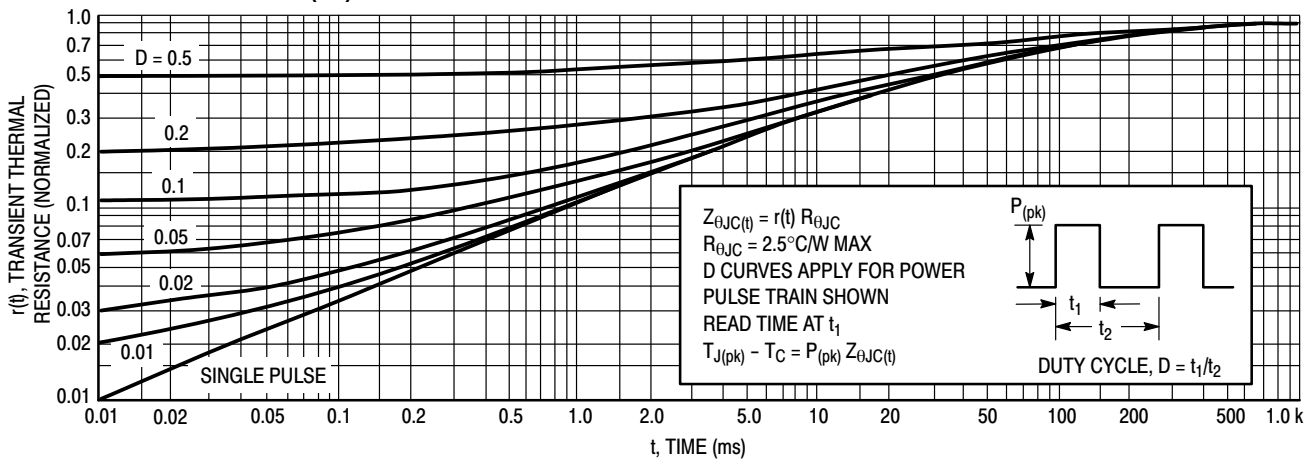


Figure 7. Thermal Response

■ TO-220-3L PACKAGE OUTLINE DIMENSIONS

