

LOW FREQUENCY POWER AMPLIFIER
LOW SPEED SWITCHING
INDUSTRIAL USE

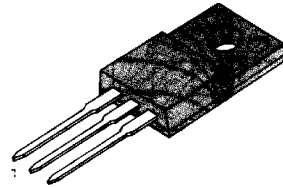
- Complement to KSB1098

ABSOLUTE MAXIMUM RATINGS

Characteristic	Symbol	Rating	Unit
Collector Base Voltage	V_{CBO}	150	V
Collector Emitter Voltage	V_{CEO}	100	V
Emitter Base Voltage	V_{EBO}	7	V
Collector Current (DC)	I_C	5	A
*Collector Current (Pulse)	I_C	8	A
Base Current	I_B	0.5	V
Collector Dissipation ($T_A=25^\circ\text{C}$;)	P_C	1.5	W
Collector Dissipation ($T_C=25^\circ\text{C}$;)	P_C	20	W
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55 ~ 150	$^\circ\text{C}$

[†] P_W ; 10ms, Duty Cycle ; 50%

TO-220F



1. Base 2. Collector 3. Emitter

ELECTRICAL CHARACTERISTICS ($T_C=25^\circ\text{C}$;)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = 100V, I_E = 0$			1	μA
*DC Current Gain	h_{FE1}	$V_{CE} = 2V, I_C = 3A$	2000	6000	15K	
	h_{FE2}	$V_{CE} = 2V, I_C = 5A$	500			
*Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 3A, I_B = 3mA$		0.9	1.5	V
Base Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 3A, I_B = 3mA$		1.6	2	V
Turn On Time	t_{ON}	$I_C = 3A, R_L = 16.7\Omega$		1		μs
Storage Time	t_{stg}	$I_B1 = -I_B2 = 3mA$		3.5		μs
Fall Time	t_f	$V_{CC} ; 50V$		1.2		μs

[†] Pulse Test: P_W ; 350US, Duty Cycle ; 2% Pulsed

$h_{FE}(1)$ CLASSIFICATION

Classification	R	O	Y
h_{FE1}	2000 ~ 5000	3000 ~ 7000	5000 ~ 15000