

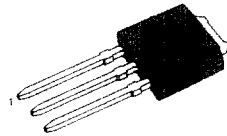
POWER AMPLIFIER APPLICATIONS

- Low Collector Emitter Saturation Voltage
- Complement to KSC3076

ABSOLUTE MAXIMUM RATINGS

Characteristic	Symbol	Rating	Unit
Collector Base Voltage	V_{CBO}	- 55	V
Collector Emitter Voltage	V_{CEO}	- 50	V
Emitter Base Voltage	V_{EBO}	- 5	V
Base Current	I_B	- 1	A
Collector Current	I_C	- 2	A
Collector Dissipation ($T_A=25^\circ\text{C}$)	P_C	1	W
Collector Dissipation ($T_C=25^\circ\text{C}$)	P_C	10	W
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{STG}	- 55~150	$^\circ\text{C}$

I-PAK



1. Base 2. Collector 3. Emitter

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

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector Emitter Sustaining Voltage	BV_{CEO}	$I_C = -10\text{mA}, I_B = 0$	- 50			V
Collector Cutoff Current	I_{CBO}	$V_{CB} = -50\text{V}, I_E = 0$			- 1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = -5\text{V}, I_C = 0$			- 1	μA
DC Current Gain	h_{FE1}	$V_{CE} = -2\text{V}, I_C = -0.5\text{A}$	70		240	
	h_{FE2}	$V_{CE} = -2\text{V}, I_C = -1.5\text{A}$	40			
Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -1\text{A}, I_B = -0.05\text{A}$			- 0.5	V
Base Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = -1\text{A}, I_B = -0.05\text{A}$			- 1.2	V
Current Gain Bandwidth Product	f_T	$V_{CE} = -2\text{V}, I_C = -0.5\text{A}$		100		MHz
Output Capacitance	C_{OB}	$V_{CB} = -10\text{V}, f = 1\text{MHz}$		40		pF
Turn On Time	t_{ON}	$V_{CC} = -30\text{V}$		0.1		μs
Storage Time	t_{STG}	$-I_B1 = I_B2 = 0.05\text{A}$		1		μs
Fall Time	t_F			0.1		μs

 h_{FE} (1) CLASSIFICATION

Classification	O	Y
h_{FE1}	70~140	120-240