

PNP Plastic-Encapsulate Transistors

APPLICATIONS

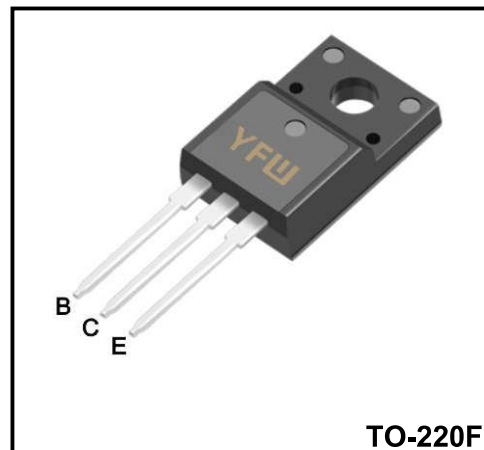
◆ General purpose power amplifier

FRATURES

◆ Low collector saturation voltage

◆ $V_{CE(sat)} = -2.0V(\text{Max.}) @ I_C = -4A, I_B = -0.4A$

◆ Complementary to KTC2028



Absolute Maximum Ratings (Ta=25°C)

Parameter		Symbol	Value	Unit
Collector-base voltage		BV_{CBO}	-100	V
Collector-emitter voltage		BV_{CEO}	-100	V
Emitter-base voltage		BV_{EBO}	-7	V
Collector current DC		I_C	-5	A
Base current		I_B	-0.5	A
Collector power dissipation	Ta=25°C	P_C	2	W
	Tc=25°C		30	
Junction temperature		T_j	150	°C
Storage temperature		T_{stg}	-55~150	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage	BV_{CBO}	$I_C = -100\mu A, I_E = 0$	-100			V
Collector-emitter voltage	BV_{CEO}	$I_C = -50mA, I_B = 0$	-100			V
Emitter-base voltage	BV_{EBO}	$I_E = -100\mu A, I_C = 0$	-7			V
Collector cut-off current	I_{CBO}	$V_{CB} = -100V, I_E = 0$			-100	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5V, I_C = 0$			-100	μA
DC current gain	$h_{FE(1)}$	$V_{CE} = -5V, I_C = -1A$	60		240	
	$h_{FE(2)}$	$V_{CE} = -5V, I_C = -4A$	20			
Collector-emitter saturation voltage*	$V_{CE(sat)}$	$I_C = -4A, I_B = -0.4A$			-2.0	V
Baser-emitter on voltage*	$V_{BE(on)}$	$V_{CE} = -5V, I_C = -4A$			-1.5	V
Transition frequency	f_T	$V_{CE} = -5V, I_C = -1A$		30		MHz
Output capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$		90		pF

* Pulse test : $PW \leq 350S$, Duty Cycle $\leq 2\%$ Pulse

h_{FE} Classification

Classification	KTA1049-O	KTA1049-Y
Range	60~120	120~240

Typical Characteristics

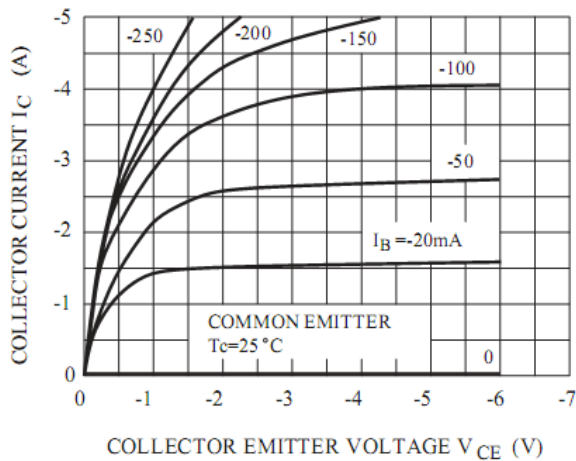


Figure.1 Static characteristics

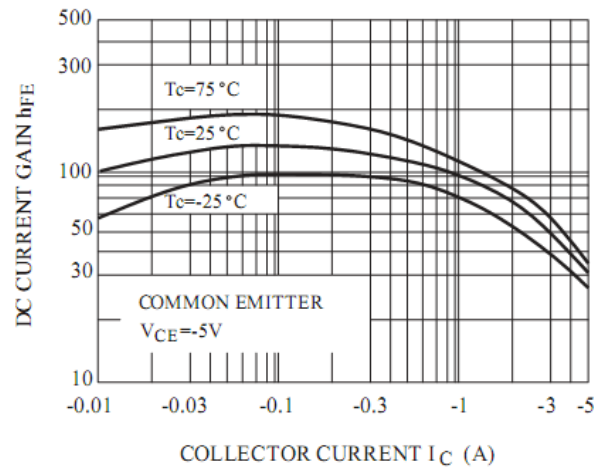


Figure. 2 DC Current Gain

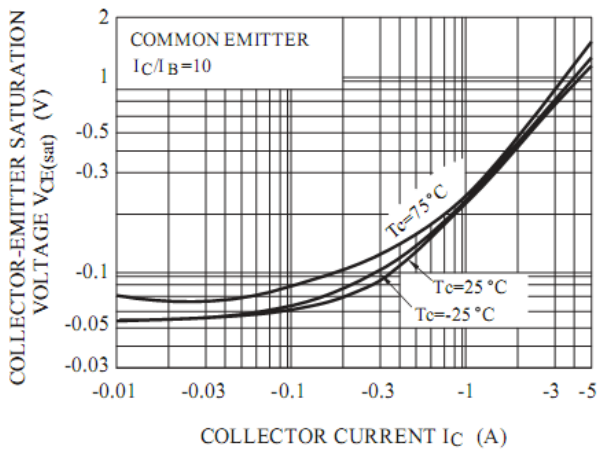


Figure. 3 Saturation voltage

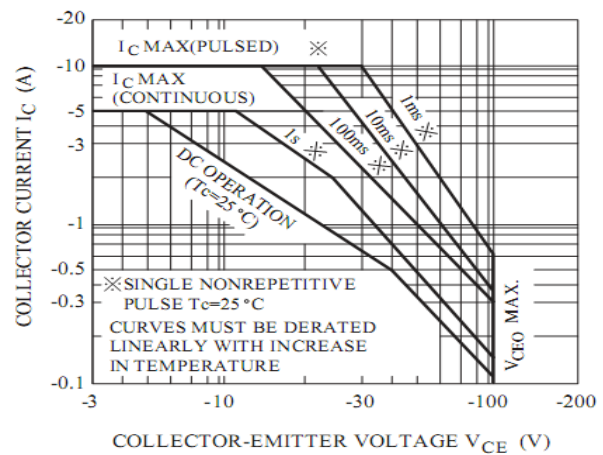


Figure. 4 Safe Operating Area

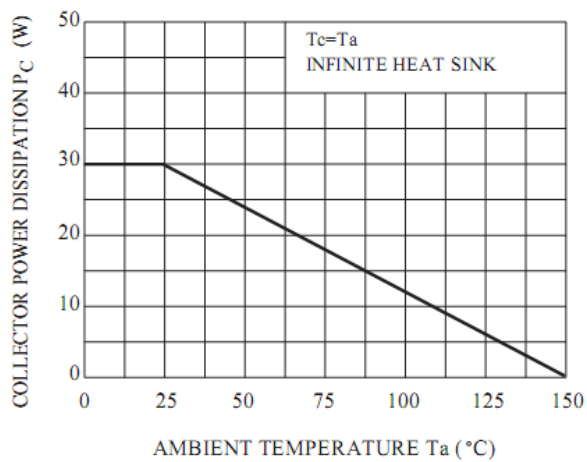
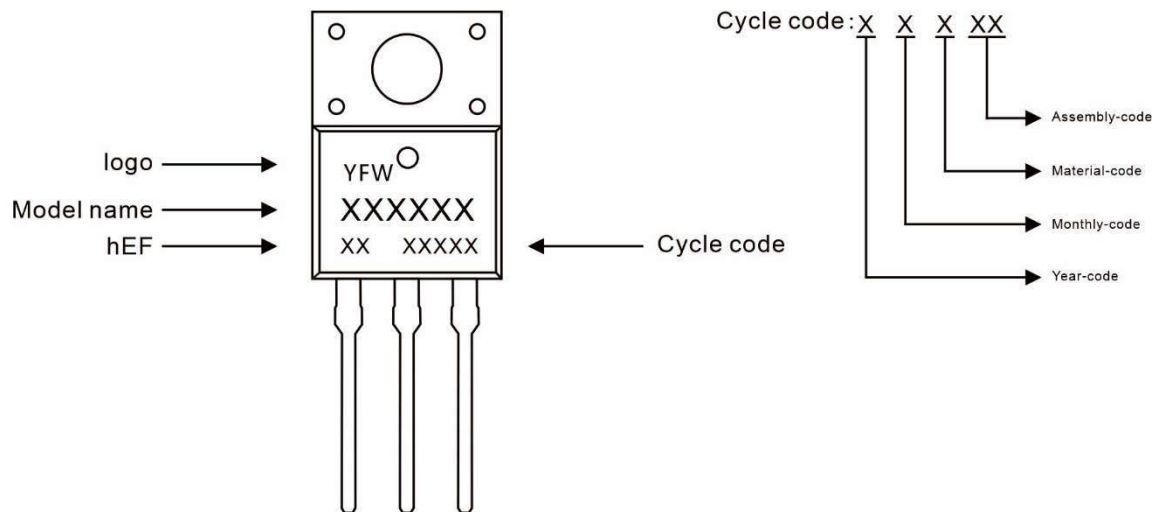


Figure. 5. Power Derating

Marking Diagram



Ordering information

Model name	Package	Unit Weight	Base Quantity	Packing Quantity
KTA1049	TO-220F	0.06oz(1.74g)	50pcs/tube	1000PCS/Box 5000PCS/Cartron

Package Dimensions

TO-220F

Symbol	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	4.50	4.90	0.177	0.193
A1	2.34	2.74	0.092	0.108
A2	2.66	2.86	0.105	0.113
b	0.75	0.85	0.030	0.033
b1	1.24	1.44	0.049	0.057
c	0.40	0.60	0.016	0.024
D	10.00	10.32	0.394	0.406
E	15.75	16.05	0.620	0.632
e	2.44	2.64	0.096	0.104
e1	4.88	5.28	0.192	0.208
F	3.10	3.5	0.122	0.138
L	13.50	13.90	0.531	0.547
L1	2.90	3.30	0.114	0.130
Φ	3.10	3.30	0.122	0.130

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