

SEMICONDUCTOR
TECHNICAL DATA

KN2907/A

EPITAXIAL PLANAR PNP TRANSISTOR

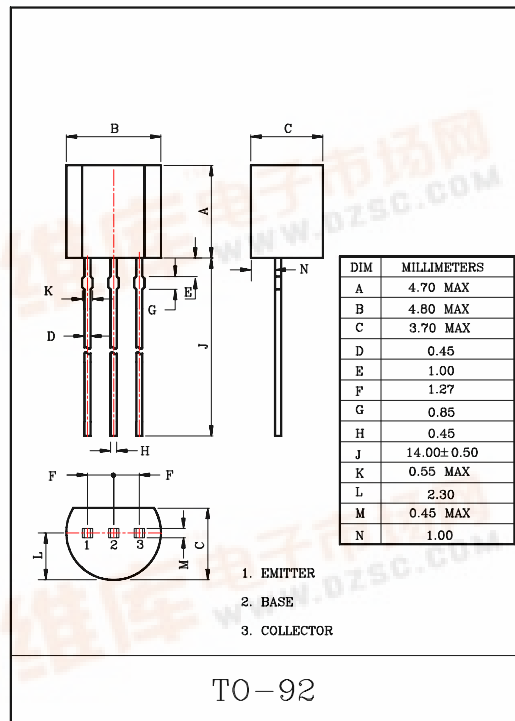
GENERAL PURPOSE APPLICATION.
SWITCHING APPLICATION.

FEATURES

- Low Leakage Current
: $I_{CEX} = -50\text{nA}(\text{Max.})$; $V_{CE} = -30\text{V}$, $V_{EB} = -0.5\text{V}$.
- Low Saturation Voltage
: $V_{CE(\text{sat})} = -0.4\text{V}(\text{Max.})$; $I_C = -150\text{mA}$, $I_B = -15\text{mA}$.
- Complementary to the KN2222/2222A.

MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	RATING		UNIT
		KN2907	KN2907A	
Collector-Base Voltage	V_{CBO}	-60		V
Collector-Emitter Voltage	V_{CEO}	-40	-60	V
Emitter-Base Voltage	V_{EBO}	-5		V
Collector Current	I_C	-600		mA
Collector Power Dissipation	P_C	625		mW
Junction Temperature	T_j	150		$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 ~ 150		$^\circ\text{C}$



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ELECTRICAL CHARACTERISTICS (Ta=25℃)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I _{CEX}	V _{CE} =-30V, V _{EB} =-0.5V	-	-	-50	nA
Collector Cut-off Current	KN2907	I _{CBO}	V _{CB} =-50V, I _E =0	-	-	-20	nA
	KN2907A			-	-	-10	
Collector-Base Breakdown Voltage		V _{(BR)CBO}	I _C =-10μA, I _E =0	-60	-	-	V
Collector-Emitter * Breakdown Voltage	KN2907	V _{(BR)CEO}	I _C =-10mA, I _B =0	-40	-	-	V
	KN2907A			-60	-	-	
Emitter-Base Breakdown Voltage		V _{(BR)EBO}	I _E =-10μA, I _C =0	-5	-	-	V
DC Current Gain	KN2907	h _{FE} (1)	I _C =-0.1mA, V _{CE} =-10V	35	-	-	
	KN2907A			75	-	-	
	KN2907	h _{FE} (2)	I _C =-1.0mA, V _{CE} =-10V	50	-	-	
	KN2907A			100	-	-	
	KN2907	h _{FE} (3)	I _C =-10mA, V _{CE} =-10V	75	-	-	
	KN2907A			100	-	-	
	KN2907	h _{FE} (4) *	I _C =-150mA, V _{CE} =-10V	100	-	300	
	KN2907A						
	KN2907	h _{FE} (5) *	I _C =-500mA, V _{CE} =-10V	30	-	-	
	KN2907A			50	-	-	
Collector-Emitter * Saturation Voltage		V _{CE(sat)1}	I _C =-150mA, I _B =-15mA	-	-	-0.4	V
		V _{CE(sat)2}	I _C =-500mA, I _B =-50mA	-	-	-1.6	
Base-Emitter * Saturation Voltage		V _{BE(sat)1}	I _C =-150mA, I _B =-15mA	-	-	-1.3	V
		V _{BE(sat)2}	I _C =-500mA, I _B =-50mA	-	-	-2.6	
Transition Frequency		f _T	V _{CE} =-20V, I _C =-50mA, f=100MHz	200	-	-	MHz
Collector Output Capacitance		C _{ob}	V _{CB} =-10V, I _E =0, f=1MHz	-	-	8	pF

Note : *Pulse Test : Pulse Width $\leq 300\mu S$, Duty Cycle $\leq 2.0\%$.

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