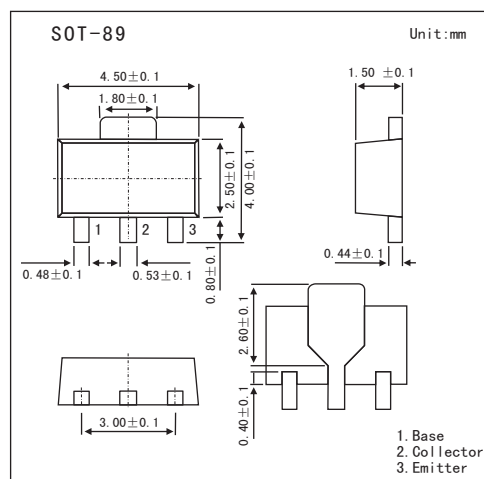


Epitaxial Planar NPN Transistor

KTC4375

Features

Collector Power Dissipation: $P_C=500\text{mW}$ Collector Current: $I_C=1.5\text{A}$ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CB0}	30	V
Collector-Emitter voltage	V_{CE0}	30	V
Emitter-base voltage	V_{EB0}	5	V
Collector Current	I_C	1.5	A
Collector Power Dissipation	P_C	500	mW
	P_C^*	1	W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to 150	$^\circ\text{C}$

* : KTC4375 mounted on ceramic substrate (250mm²x0.8t)Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=1\text{mA}, I_E=0$	30			V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=10\text{mA}, I_B=0$	30			V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=1\text{mA}, I_C=0$	5			V
Collector Cut-off Current	I_{CBO}	$V_{CB}=30\text{V}, I_E=0$			100	nA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=5\text{V}, I_C=0$			100	nA
DC Current Gain	h_{FE}	$V_{CE}=2\text{V}, I_C=500\text{mA}$	100		320	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=1.5\text{A}, I_B=0.03\text{A}$			2.0	V
Base-Emitter Voltage	V_{BE}	$V_{CE}=2\text{V}, I_C=500\text{mA}$			1.0	V
Transition frequency	f_T	$V_{CE}=2\text{V}, I_C=500\text{mA}$		120		MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$			40	pF

 h_{FE} Classification

Marking	GO	GY
Rank	O	Y
h_{FE}	100 200	160 320