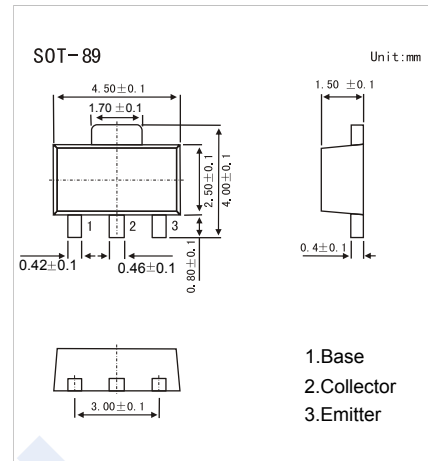


NPN Transistors

KTD1898

■ Features

- Small Flat Package
- General Purpose Application

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CB0}	100	V
Collector - Emitter Voltage	V_{CE0}	80	
Emitter - Base Voltage	V_{EB0}	5	
Collector Current - Continuous	I_c	1	A
Collector Power Dissipation	P_c	500	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	250	$^\circ\text{C}/\text{W}$
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to 150	

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V_{CB0}	$I_c = 100 \mu\text{A}, I_E = 0$	100			V
Collector-emitter breakdown voltage	V_{CE0}	$I_c = 1 \text{ mA}, I_B = 0$	80			
Emitter - base breakdown voltage	V_{EB0}	$I_E = 100 \mu\text{A}, I_c = 0$	5			
Collector-base cut-off current	I_{CB0}	$V_{CB} = 80 \text{ V}, I_E = 0$			1	uA
Emitter cut-off current	I_{EB0}	$V_{EB} = 4 \text{ V}, I_c = 0$			1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_c = 500 \text{ mA}, I_B = 20 \text{ mA}$			0.4	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_c = 500 \text{ mA}, I_B = 20 \text{ mA}$			1	
DC current gain	h_{FE}	$V_{CE} = 3 \text{ V}, I_c = 500 \text{ mA}$	70		400	
Collector output capacitance	C_{ob}	$V_{CB} = 10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		20		pF
Transition frequency	f_T	$V_{CE} = 10 \text{ V}, I_c = 50 \text{ mA}, f = 100 \text{ MHz}$		100		MHz

■ Classification of h_{FE}

Type	KTD1898-O	KTD1898-Y	KTD1898-G
Range	70-140	120-240	200-400
Marking	ZO	ZY	ZG