



SOT-89-3L Plastic-Encapsulate Transistors

KTC4378 TRANSISTOR (NPN)

FEATURES

High voltage

MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

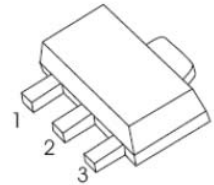
Symbol	Parameter	Value	Unit
V _{CB0}	Collector-Base Voltage	80	V
V _{CEO}	Collector-Emitter Voltage	60	V
V _{EBO}	Emitter-Base Voltage	5	V
I _C	Collector Current -Continuous	1	A
P _C	Collector Dissipation	0.5	W
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55~150	°C

SOT-89-3L

1. BASE

2. COLLECTOR

3. EMITTER



ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =1mA, I _E =0	80			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =10mA, I _B =0	60			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =1mA, I _C =0	5			V
Collector cut-off current	I _{CBO}	V _{CB} =50V, I _E =0			0.1	μA
Emitter cut-off current	I _{EBO}	V _{EB} =4V, I _C =0			0.1	μA
DC current gain	h _{FE(1)}	V _{CE} =2V, I _C =0.05A	100		320	
	h _{FE(2)}	V _{CE} =2V, I _C =1A	30			
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =500mA, I _B =50mA			0.5	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C =500mA, I _B =50mA			1.2	V
Transition frequency	f _T	V _{CE} =10V, I _C =50mA		150		MHz
Collector output capacitance	C _{ob}	V _{CB} =10V, I _E =0, f=1MHz		12		pF

CLASSIFICATION OF h_{FE(1)}

Rank	Y	GR
Range	100-200	160-320
Marking	TY	TGR