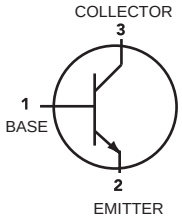
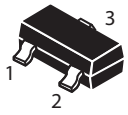
WEITRON

KTC3876

Plastic-Encapsulate Transistors
NPN Silicon

Lead(Pb)-Free





SOT-23

MAXIMUM RATINGS (Ta=25°C)

Rating	Symbol	Value	Unit
Collector-Emitter Voltage	V_{CEO}	30	Vdc
Collector-Base Voltage	V_{CBO}	35	Vdc
Emitter-Base Voltage	V_{EBO}	5.0	Vdc
Collector Current -Continuous	I_C	500	mAdc

THERMAL CHARACTERISTICS

Characteristics	Symbol	Value	Unit
Total Device Dissipation T_A =25 C	P_D	200	mW
Junction and Storage, Temperature	T_J, Tstg	-55 to +150	°C

ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	Min	Max	Unit
Collector-Emitter Breakdown Voltage (I_C= 1 mA dc, I_B=0)	$V_{(BR)CEO}$	30	-	Vdc
Collector-Base Breakdown Voltage (I_C= -100 uAdc, I_E=0)	$V_{(BR)CBO}$	35	-	Vdc
Emitter-Base Breakdown Voltage (I_E= 100 uAdc, I_C=0)	$V_{(BR)EBO}$	5.0	-	Vdc
Collector Cutoff Current (V_{CB}= 35Vdc , I_E=0)	I_{CBO}	-	0.1	uAdc
Emitter Cutoff Current (V_{EB}= 5.0 Vdc , I_C=0)	I_{EBO}	-	0.1	uAdc

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted) (Countinued)

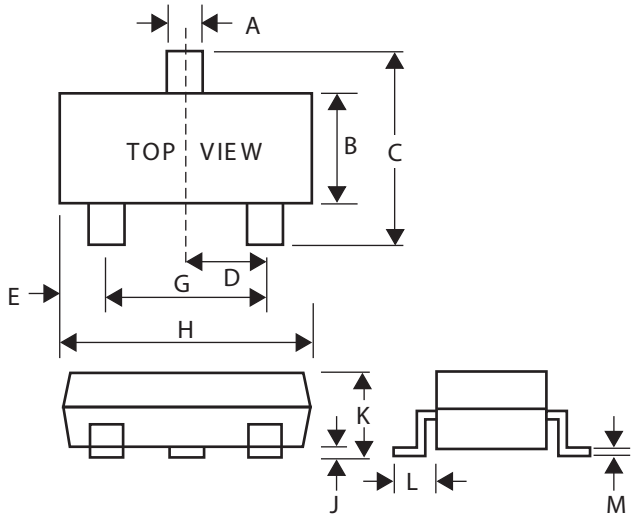
Characteristics	Symbol	Min	TYP	Max	Unit
ON CHARACTERISTICS					
DC Current Gain (I_C= 100mAdc, V_{CE}=1 Vdc)	h_{FE1}	70		400	
(I_C= 400mAdc, V_{CE}= 6 Vdc) ○	h_{FE2}	25			
Y		40			
Collector-Emitter Saturation Voltage (I_C= 100 mAdc, I_B= 10 mAdc)	$V_{CE(sat)}$			0.25	Vdc
Base-Emitter Voltage (V_{CE} = 1V, I_B= 100mAdc)	V_{BE}			1	Vdc
Transition Frequency (I_C= 20mAdc, V_{CE}= 6 Vdc)	f_T		300		MHz
Collector Output Capacitance (V_{CB}= 6 V, I_E= 0, f=1MHz)	Cob		7		pF

CLASSIFICATION OF h_{FE}

Rank	O	Y	GR(G)
Range	70-140	120-240	200-400
Marking	WO	WY	WG

SOT-23 Package Outline Dimensions

Unit:mm



Dim	Min	Max
A	0.35	0.51
B	1.19	1.40
C	2.10	3.00
D	0.85	1.05
E	0.46	1.00
G	1.70	2.10
H	2.70	3.10
J	0.01	0.13
K	0.89	1.10
L	0.30	0.61
M	0.076	0.25