

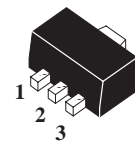
NPN Epitaxial Planar Transistors

(Pb) Lead(Pb)-Free

*Low Collector-Emitter Saturation Voltage

*High Breakdown Voltage

SOT-89



1. BASE
2. COLLECTOR
3. EMITTER

ABSOLUTE MAXIMUM RATINGS (T_A=25°C)

Rating	Symbol	Limits	Unit
Collector-Base Voltage	V _{CBO}	500	V
Collector-Emitter Voltage	V _{CEO}	400	V
Emitter-Base Voltage	V _{EBO}	6	V
Collector Current - Continuous	I _C	200	mA
Collector Current - Pulsed	I _{CM}	300	mA
Collector Power Dissipation	P _D	500	mW
Thermal Resistance from Junction to Ambient	R _{θJA}	250	°C/W
Junction Temperature	T _j	150	°C
Storage Temperature Range	T _{stg}	-55 to +150	°C

Device Marking

WTMA44=A44

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

Parameter	Symbol	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage I _C =100μA, I _E =0	BV _{CBO}	500	-	-	V
Collector-Emitter Breakdown Voltage I _C =1mA, I _B =0	BV _{CEO}	400	-	-	V
Emitter-Base Breakdown Voltage I _E =10μA, I _C =0	BV _{EBO}	6	-	-	V
Collector Cutoff Current V _{CB} =400V, I _E =0	I _{CBO}	-	-	0.1	μA
Emitter Cut-off Current V _{EB} =4V, I _C =0	I _{EBO}	-	-	0.1	μA

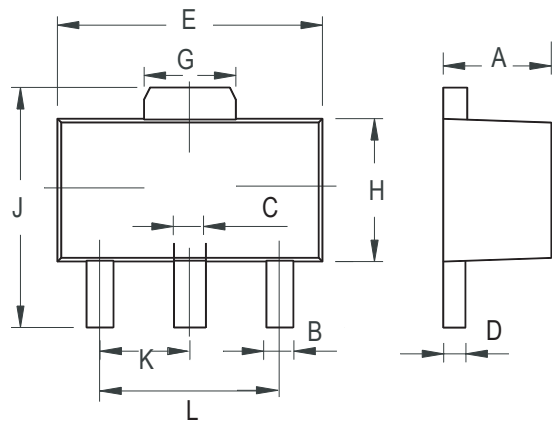
ELECTRICAL CHARACTERISTICS (T_A=25°C Unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
DC Current Gain V _{CE} =10V, I _C =1mA V _{CE} =10V, I _C =10mA V _{CE} =10V, I _C =50mA V _{CE} =10V, I _C =100mA	h _{FE1} h _{FE2} h _{FE3} h _{FE4}	40 50 45 40	- - - -	- 200 - -	-
Collector-Emitter Saturation Voltage I _C =1mA, I _B =0.1mA I _C =10mA, I _B =1mA I _C =50mA, I _B =5mA	V _{CE1(sat)} V _{CE2(sat)} V _{CE3(sat)}			0.4 0.5 0.75	V
Base-Emitter Saturation Voltage I _C =10mA, I _B =1mA	V _{BE(sat)}	-	-	0.75	V
Collector Output Capacitance V _{CB} =20V, I _E =0, f=1MHz	C _{ob}	-	-	7	pF
Emitter Input Capacitance V _{BE} =0.5V, I _C =0, f=1MHz	C _{ib}	-	-	130	pF

1. Pulse Test: Pulse Width ≤ 300μs, Duty Cycle ≤ 2%

SOT-89 Outline Dimensions

unit:mm



SOT-89		
Dim	Min	Max
A	1.400	1.600
B	0.320	0.520
C	0.360	0.560
D	0.350	0.440
E	4.400	4.600
G	1.400	1.800
H	2.300	2.600
J	3.940	4.250
K	1.500TYP	
L	2.900	3.100