

THERMAL DATA

$R_{\text{thj-amb}}$ •	Thermal Resistance Junction-Ambient	Max	89.3	$^{\circ}\text{C/W}$
• Device mounted on a PCB area of 1 cm^2				

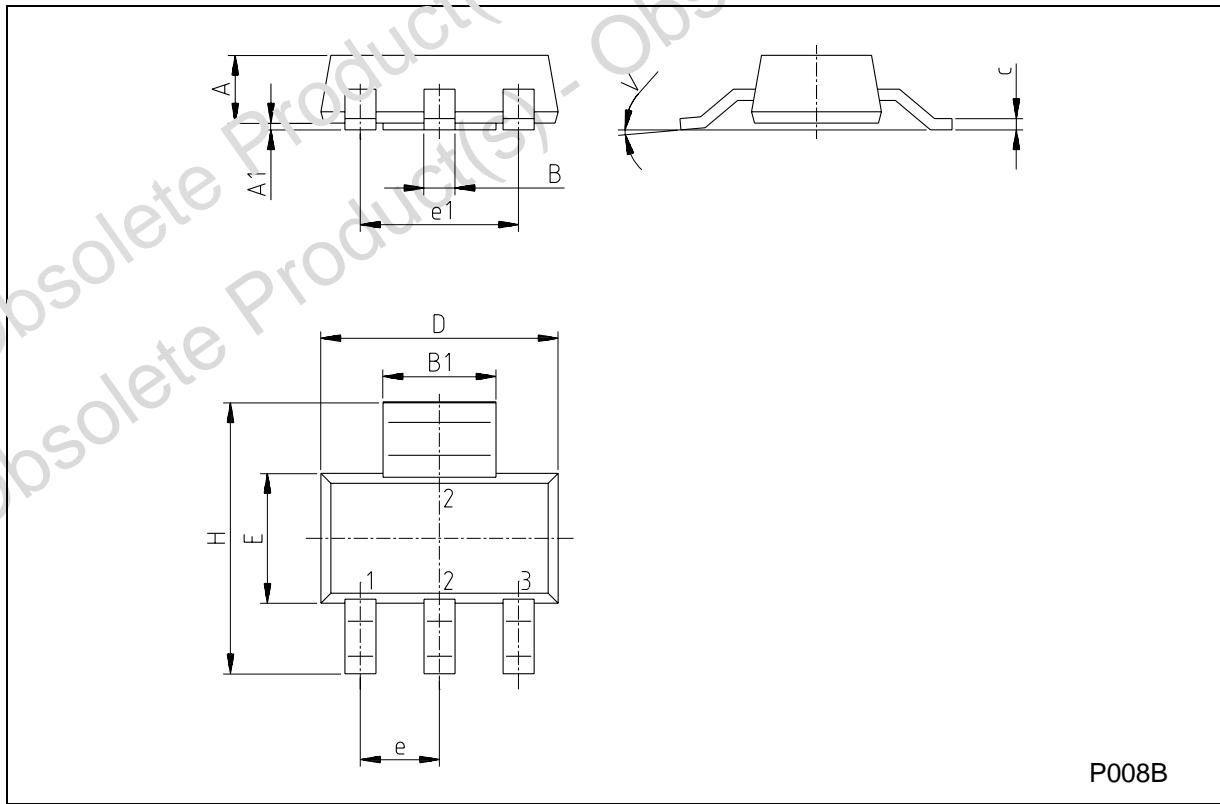
ELECTRICAL CHARACTERISTICS ($T_{\text{case}} = 25^{\circ}\text{C}$ unless otherwise specified)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I_{CBO}	Collector Cut-off Current ($I_E = 0$)	$V_{\text{CB}} = -30 \text{ V}$ $V_{\text{CB}} = -30 \text{ V}$ $T_j = 125^{\circ}\text{C}$			-100 -10	nA μA
$V_{(\text{BR})\text{CBO}}$	Collector-Base Breakdown Voltage ($I_E = 0$)	$I_C = -100 \mu\text{A}$	-60			V
$V_{(\text{BR})\text{CEO}}^*$	Collector-Emitter Breakdown Voltage ($I_B = 0$)	$I_C = -20 \text{ mA}$	-60			V
$V_{(\text{BR})\text{CER}}$	Collector-Emitter Breakdown Voltage ($R_{\text{BE}} = 1 \text{ K}\Omega$)	$I_C = -100 \mu\text{A}$	-60			V
$V_{(\text{BR})\text{EBO}}$	Emitter-Base Breakdown Voltage ($I_C = 0$)	$I_E = -10 \mu\text{A}$	-5			V
$V_{\text{CE}(\text{sat})}^*$	Collector-Emitter Saturation Voltage	$I_C = -500 \text{ mA}$ $I_B = -50 \text{ mA}$			-0.5	V
$V_{\text{BE}(\text{on})}^*$	Base-Emitter On Voltage	$I_C = -500 \text{ mA}$ $V_{\text{CE}} = -2 \text{ V}$			-1	V
h_{FE}^*	DC Current Gain	$I_C = -5 \text{ mA}$ $V_{\text{CE}} = -2 \text{ V}$ $I_C = -150 \text{ mA}$ $V_{\text{CE}} = -2 \text{ V}$ $I_C = -500 \text{ mA}$ $V_{\text{CE}} = -2 \text{ V}$	40 100 25		250	
f_T	Transition Frequency	$I_C = -10 \text{ mA}$ $V_{\text{CE}} = -5 \text{ V}$ $f = 20 \text{ MHz}$		50		MHz

* Pulsed: Pulse duration = 300 μs , duty cycle $\leq 1.5\%$

SOT-223 MECHANICAL DATA

DIM.	mm			inch		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A			1.80			0.071
B	0.60	0.70	0.80	0.024	0.027	0.031
B1	2.90	3.00	3.10	0.114	0.118	0.122
c	0.24	0.26	0.32	0.009	0.010	0.013
D	6.30	6.50	6.70	0.248	0.256	0.264
e		2.30			0.090	
e1		4.60			0.181	
E	3.30	3.50	3.70	0.130	0.138	0.146
H	6.70	7.00	7.30	0.264	0.276	0.287
V			10°			10°
A1		0.02				



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