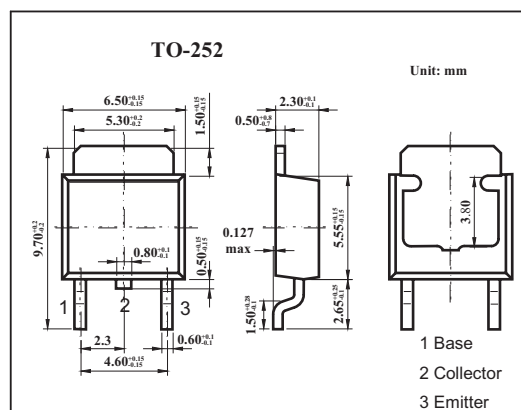


Low $V_{CE(sat)}$ Transistor

T3036

■ Features

- Low saturation voltage. typically $V_{CE(sat)}=0.13V$ at $I_C/I_B=4A/50mA$.
- High current capacity. Typically $I_C=10A$ for DC operation and 15A 10ms pulse.



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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	30	V
Collector-emitter voltage	V_{CEO}	20	V
Emitter-base voltage	V_{EBO}	6	V
Collector current	I_C	10	A
Collector current (pulse) *	I_{CP}	15	A
Base current	I_B	2	A
Collector power dissipation	P_C	1	W
Junction temperature	T_j	150	$^\circ C$
Storage temperature	T_{stg}	-55 to +150	$^\circ C$

* Single pulse $P_w=100ms$.

■ Electrical Characteristics $T_a = 25^\circ C$

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V_{CBO}	$I_C=50\mu A$	30			V
Collector-emitter breakdown voltage	V_{CEO}	$I_C=1mA$	20			V
Emitter-base breakdown voltage	V_{EBO}	$I_E=50\mu A$	6			V
Collector cutoff current	I_{CBO}	$V_{CB}=20V$			1	μA
Emitter cutoff current	I_{EBO}	$V_{EB}=5V$			1	μA
DC current transfer ratio	h_{FE}	$V_{CE}=2V, I_C=0.5A$	120		390	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 4A, I_B = 0.05A$		0.13	0.25	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 4A, I_B = 0.05A$		0.9	1.2	V
Output capacitance	C_{ob}	$V_{CB}=10V, I_E=0A, f=1MHz$		220		pF
Transition frequency	f_T	$V_{CE}=5V, I_E= -1.5A, f=50MHz$		150		MHz