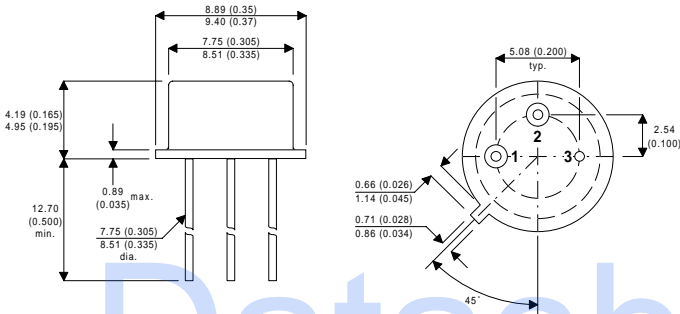


**MECHANICAL DATA**

Dimensions in mm (inches)

**HIGH SPEED  
MEDIUM VOLTAGE  
SWITCHES**



**DESCRIPTION**

The 2N4036 is a silicon epitaxial planar PNP transistors in jedec TO-39 metal case intended for use in switching applications.

Datasheet.Live

TO-39

Pin 1 – Emitter      Pin 2 – Base      Pin 3 – Collector

**ABSOLUTE MAXIMUM RATINGS**

$T_{CASE} = 25^{\circ}C$  unless otherwise stated

		2N4036
$V_{CBO}$	Collector – Base Voltage ( $I_E = 0$ )	-90V
$V_{CEX}$	Collector – Emitter Voltage ( $V_{BE} = 1.5V$ )	-85V
$V_{EBO}$	Emitter – Base Voltage ( $I_C = 0$ )	-6V
$I_C$	Continuous Collector Current	-1A
$I_B$	Base Current	0.5
$P_{tot}$	Total Dissipation at $T_{amb} \leq 25^{\circ}C$	1
	$T_{case} \leq 25^{\circ}C$	7
$T_{stg}$	Operating and Storage Temperature Range	-65 to +200°C
$T_j$	Junction temperature	200°C

**THERMAL DATA**

$R_{thj-case}$	Thermal Resistance Junction-case	Max	25	°C/W
$R_{thj-amb}$	Thermal Resistance Junction-ambient	Max	175	°C/W

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

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
$I_{CBO}$	Collector Cut Off Current $V_{CB} = -60V$ $I_E = 0$			-20	nA
$I_{CEO}$	Collector Cut Off Current $V_{CE} = -30V$ $I_B = 0$			-0.5	$\mu A$
$I_{EBO}$	Emitter Cut Off Current $V_{EB} = -5V$ $I_C = 0$			-20	nA
$V_{CE(sat)}$	Collector Emitter Saturation Voltage $I_C = -150mA$ $I_B = -15mA$			-0.65	V
$V_{BE}$	Base Emitter Saturation Voltage $I_C = -150mA$ $V_{CE} = -10V$			-1.1	V
$V_{(BR)CBO}$	Collector Base Breakdown Voltage $I_C = -100\mu A$ $I_E = 0$	-90			V
$V_{(BR)CEX}$	Collector Emitter Breakdown Voltage $I_C = -10mA$ $V_{BE} = 1.5V$	-85			V
$V_{(BR)CER}$	Collector Emitter Breakdown Voltage $I_C = -10mA$ $R_{BE} = 200\Omega$	-85			V
$V_{(BR)CEO}$	Collector Emitter Breakdown Voltage $I_C = -10mA$ $I_B = 0$	-65			V
$V_{(BR)EBO}$	Emitter Base Breakdown Voltage $I_C = 0$ $I_E = -100\mu A$	-7			
$h_{FE}$	DC Current Gain $I_C = -0.1mA$ $V_{CE} = -10V$ $I_C = -150mA$ $V_{CE} = -10V$ $I_C = -500mA$ $V_{CE} = -10V$	20 40 20		140	
$f_T$	Transistion Frequency $I_C = -50mA$ $V_{CE} = -10v$ $f = 20MHz$	60			MHz
$C_{EBO}$	Emitter Base Capacitance $I_E = 0$ $V_{CB} = -0.5V$ $f = 1MHz$			90	pF
$C_{CBO}$	Collector Base Capacitance $I_E = 0$ $V_{CB} = -10V$ $f = 1MHz$			30	pF
$t_{on}$	Turn On Time $I_C = -150mA$ $V_{CC} = -30V$ $I_{B1} = -15mA$			110	ns
$t_{off}$	Turn Off Time $I_C = -150mA$ $V_{CC} = -30V$ $I_{B1} = -I_{B2} = 15mA$			700	ns

\* Pulse test  $t_p = 300\mu s$  ,  $\delta = 1\%$