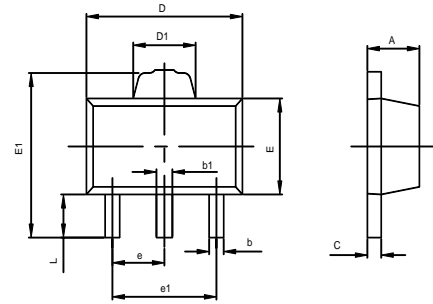


RoHS Compliant Product

Features

1. -60Volt V_{CEO}
2. 3 Amp continuous current
3. Low saturation voltage

SOT-89



● Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V _{CB0}	-80	V
Collector-emitter voltage	V _{CEO}	-60	V
Emitter-base voltage	V _{EBO}	-5	V
Collector current	I _c	-3	A(DC)
		-6	A(Pulse)*1
Total power dissipation	P _c	0.5	W
		2	W *2
Junction temperature	T _j	150	°C
Storage temperature	T _{stg}	-55~+150	°C

*1 Single pulse, Pw=10ms

*2 When mounted on a 40x40x0.7 mm ceramic board.

Symbol	Dimensions in Millimeters		Dimensions in Inches	
	Min	Max	Min	Max
A	1.400	1.600	0.055	0.063
b	0.320	0.520	0.013	0.020
b1	0.360	0.560	0.014	0.022
c	0.350	0.440	0.014	0.017
D	4.400	4.600	0.173	0.181
D1	1.400	1.800	0.055	0.071
E	2.300	2.600	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500TYP		0.060TYP	
e1	2.900	3.100	0.114	0.122
L	0.900	1.100	0.035	0.043

● Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV _{CB0}	-80	-	-	V	I _c =-100μA, I _E =0
Collector-emitter breakdown voltage	BV _{CEO}	-60	-	-	V	I _c =-10mA, I _B =0
Emitter-base breakdown voltage	BV _{EBO}	-5	-	-	V	I _E =-100μA, I _c =0
Collector cutoff current	I _{cBO}	-	-	0.1	μA	V _{CB} =-60V, I _E =0
Emitter cutoff current	I _{EBO}	-	-	0.1	μA	V _{EB} =-4V, I _c =0
Collector-emitter saturation voltage 1	V _{CE(sat)1}	-	-150	-300	mV	I _c =-1A, I _B =-100mA
Collector-emitter saturation voltage 2	V _{CE(sat)2}	-	-450	-600	mV	I _c =-3A, I _B =-300mA
Base-emitter saturation voltage Sat	V _{BE(sat)}	-	-0.9	-1.25	V	I _c =-1A, I _B =-100mA
Base-emitter saturation voltage On	V _{BE(on)}	-	-0.8	-1.0	V	V _{CE} =-2V, I _c =-1A
Output capacitance	C _{ob}	-	-	30	pF	V _{CB} =-10V, I _E =0A, f=1MHz
Current Gain - Bandwidth Product	f _T	100	140	-	MHz	V _{CE} =-5V, I _c =-100mA, f=100MHz
Switching Time	t _{on}	-	40	-	ns	V _{CC} =-10V, I _c =-500mA, I _{B1} =I _{B2} =-50mA
	t _{off}	-	450	-		
Current Gain	h _{FE1}	70	200	-		V _{CE} =-2V, I _c =-50mA
	h _{FE2}	100	200	300		V _{CE} =-2V, I _c =-500mA
	h _{FE3}	80	170	-		V _{CE} =-2V, I _c =-1A
	h _{FE4}	40	150	-		V _{CE} =-2V, I _c =-2A

Note: Measured under pulse condition. Pulse width<300us, Duty cycle<2%
Spice parameter data is available upon urquest for this device.

Electrical characteristics curves

