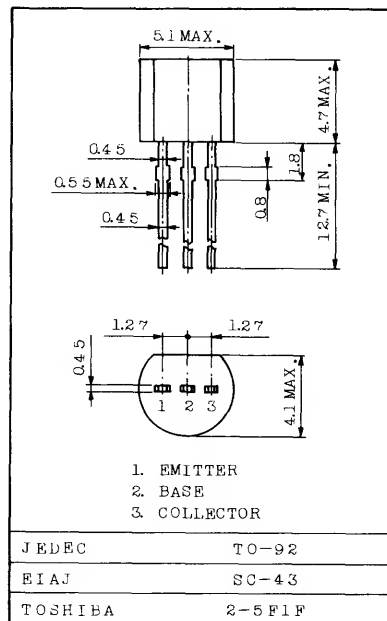


FOR GENERAL PURPOSE USE SWITCHING AND AMPLIFIER APPLICATIONS.

FEATURES:

- . Low Leakage Current
: $I_{CEV}=50\text{nA}(\text{Max.})$, $I_{BEV}=-50\text{nA}(\text{Max.})$
@ $V_{CE}=30\text{V}$, $V_{BE}=-3\text{V}$
- . Excellent DC Current Gain Linearity
- . Low Saturation Voltage
: $V_{CE}(\text{sat})=0.3\text{V}(\text{Max.})$ @ $I_C=50\text{mA}$, $I_B=5\text{mA}$
- . Low Collector Output Capacitance
: $C_{ob}=4\text{pF}(\text{Max.})$ @ $V_{CB}=5\text{V}$
- . Complementary to 2N3906

Unit in mm



MAXIMUM RATINGS (Ta=25°C)

Weight : 0.21g

CHARACTERISTIC	SYMBOL	RATING	UNIT
* Collector-Base Voltage	V _{CB0}	60	V
* Collector-Emitter Voltage	V _{CEO}	40	V
* Emitter-Base Voltage	V _{EB0}	6	V
* Collector Current	I _C	200	mA
Base Current	I _B	50	mA
* Collector Power Dissipation (Ta=25°C) Derate Linearly 25°C	P _C	350	mW
		2.8	mW/°C
* Collector Power Dissipation (Tc=25°C) Derate Linearly 25°C	P _C	1.0	W
		8	mW/°C
* Thermal Resistance (Junction to Ambient)	R _{th(j-a)}	357	°C/W
* Thermal Resistance (Junction to Case)	R _{th(j-c)}	125	°C/W
* Junction Temperature	T _j	150	°C
* Storage Temperature Range	T _{stg}	-55~150	°C

*In accordance with JEDEC registration data.

ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT		
* Collector Cut-off Current	ICEV	VCE=30V, VBE=-3V	-	-	50	nA		
* Base Cut-off Current	IBEV	VCE=30V, VBE=-3V	-	-	-50	nA		
* Collector-Base Breakdown Voltage	V(BR)CBO	IC=10μA, IE=0	60	-	-	V		
* Collector-Emitter Breakdown Voltage	V(BR)CEO	IC=1mA, IB=0	40	-	-	V		
* Emitter-Base Breakdown Voltage	V(BR)EBO	IE=10μA, IC=0	6	-	-	V		
* DC Current Gain	hFE(1)	VCE=1V, IC=0.1mA	40	-	-			
	hFE(2)	VCE=1V, IC=1mA	70	-	-			
	hFE(3)	VCE=1V, IC=10mA	100	-	300			
	hFE(4)	VCE=1V, IC=50mA	60	-	-			
	hFE(5)	VCE=1V, IC=100mA	30	-	-			
* Collector-Emitter Saturation Voltage	VCE(sat)1	IC=10mA, IB=1mA	-	-	0.2	V		
	VCE(sat)2	IC=50mA, IB=5mA	-	-	0.3			
* Base-Emitter Saturation Voltage	VBE(sat)1	IC=10mA, IB=1mA	0.65	-	0.85	V		
	VBE(sat)2	IC=50mA, IB=5mA	-	-	0.95			
* Transition Frequency	fT	VCE=20V, IC=10mA f=100MHz	300	-	-	MHz		
* Collector Output Capacitance	Cob	VCB=5V, IE=0, f=1MHz	-	-	4	pF		
* Input Capacitance	Cib	VEB=0.5V, IC=0, f=1MHz	-	-	8	pF		
* Input Impedance	hie	VCE=10V, IC=1mA f=1kHz	1.0	-	10	kΩ		
* Voltage Feedback Ratio	hre		0.5	-	8	×10 ⁻⁴		
* Small-Signal Current Gain	hfe		100	-	400			
* Collector Output Admittance	hoe		1.0	-	40	μS		
* Noise Figure	NF		VCE=5V, IC=0.1mA Rg=1kΩ, f=10Hz ~ 15.7kHz	-	-	5	dB	
* Switching Time	Delay Time	td				-	-	35
	Rise Time	tr				-	-	35
	Storage Time	tstg				-	-	200
	Fall Time	tf				-	-	50

* In accordance with JEDEC registration data.