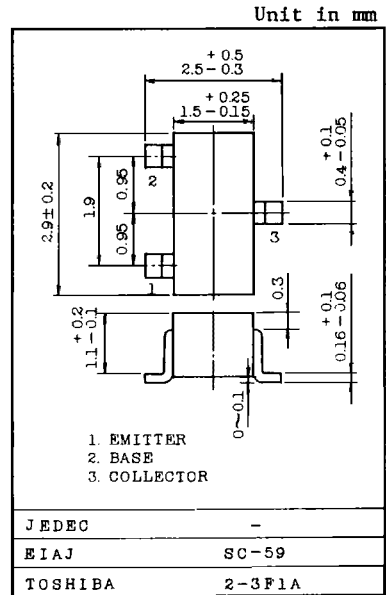


FOR GENERAL PURPOSE USE SWITCHING AND AMPLIFIER APPLICATIONS.

FEATURES:

- Low Leakage Current  
 :  $I_{CEV} = -50\text{nA (Max.)}$ ,  $I_{BEV} = 50\text{nA (Max.)}$   
 @  $V_{CB} = -30\text{V}$ ,  $V_{BE} = 3\text{V}$
- Excellent DC Current Gain Linearity
- Low Saturation Voltage  
 :  $V_{CE(sat)} = -0.4\text{V (Max.)}$  @  $I_C = -50\text{mA}$ ,  $I_B = -5\text{mA}$
- Low Collector Output Capacitance  
 :  $C_{ob} = 4.5\text{pF (Max.)}$  @  $V_{CB} = -5\text{V}$
- Complementary to YTS3903



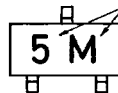
Weight: 0.012g

MAXIMUM RATINGS ( $T_a = 25^\circ\text{C}$ )


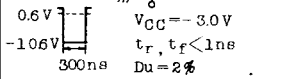
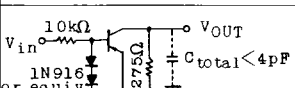
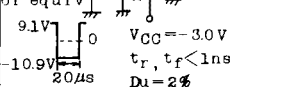
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	-40	V
Collector-Emitter Voltage	$V_{CEO}$	-40	V
Emitter-Base Voltage	$V_{EBO}$	-5	V
Collector Current	$I_C$	-200	mA
Base Current	$I_B$	-50	mA
Collector Power Dissipation ( $T_a = 25^\circ\text{C}$ ) Derate Linearly $25^\circ\text{C}$	$P_C$	200	mW
		1.6	mW/ $^\circ\text{C}$
Thermal Resistance (Junction to Ambient)	$R_{th(j-a)}$	625	$^\circ\text{C/W}$
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55 ~ 150	$^\circ\text{C}$

Marking

Type Name



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	-40	-	-	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	-5	-	-	V	
DC Current Gain	hFE(1)		VCE=-1V, IC=-0.1mA	30	-	-		
	hFE(2)		VCE=-1V, IC=-1mA	40	-	-		
	hFE(3)		VCE=-1V, IC=-10mA	50	-	150		
	hFE(4)		VCE=-1V, IC=-50mA	30	-	-		
	hFE(5)		VCE=-1V, IC=-100mA	15	-	-		
Collector-Emitter Saturation Voltage	VCE(sat)1		IC=-10mA, IB=-1mA	-	-	-0.25	V	
	VCE(sat)2		IC=-50mA, IB=-5mA	-	-	-0.4		
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	200	-	-	MHz	
Collector Output Capacitance		Cob	VCB=-5V, IE=0, f=1MHz	-	-	4.5	pF	
Input Capacitance		Cib	VEB=-0.5V, IC=0, f=1MHz	-	-	10	pF	
Input Impedance		hie	VCE=-10V, IC=-1mA	0.5	-	8	kΩ	
Voltage Feedback Ratio		hre		0.1	-	5	×10 <sup>-4</sup>	
Small-Signal Current Gain		hfe		f=1kHz	50	-	200	
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(ON)		-	-	35	ns	
	Rise Time	tr		-	-	35		
	Storage Time	tstg		-	-	200		
	Fall Time	tf		-	-	60		