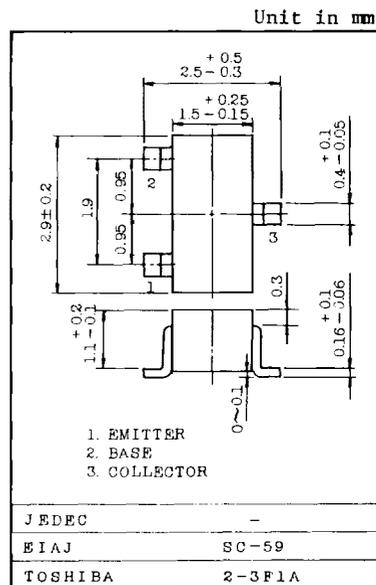


FOR GENERAL PURPOSE USE SWITCHING AND AMPLIFIER APPLICATIONS.

FEATURES:

- Low Leakage Current :  $I_{CBO} = -50\text{nA (Max.)}$  @  $V_{CB} = -20\text{V}$   
 $I_{EBO} = -50\text{nA (Max.)}$  @  $V_{EB} = -3\text{V}$
- 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 YTS4123



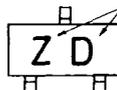
Weight: 0.012g

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	-30	V
Collector-Emitter Voltage	$V_{CEO}$	-30	V
Emitter-Base Voltage	$V_{EBO}$	-4	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 ( $T_a=25^\circ\text{C}$ )

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	ICBO	$V_{CB}=-20V, I_E=0$	-	-	-50	nA
Emitter Cut-off Current	IEBO	$V_{EB}=-3V, I_C=0$	-	-	-50	nA
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=-10\mu A, I_E=0$	-30	-	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=-1mA, I_B=0$	-30	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=-10\mu A, I_C=0$	-4	-	-	V
DC Current Gain	$h_{FE}(1)$	$V_{CE}=-1V, I_C=-2mA$	50	-	150	
	$h_{FE}(2)$	$V_{CE}=-1V, I_C=-50mA$	25	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-50mA, I_B=-5mA$	-	-	-0.4	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=-50mA, I_B=-5mA$	-	-	-0.95	V
Small Signal Forward Current Transfer Ratio	$ h_{fe} $	$V_{CE}=-20V, I_C=-10mA$ $f=100MHz$	2.0	-	-	
Transition Frequency	$f_T$	$V_{CE}=-20V, I_C=-10mA$ $f=100MHz$	200	-	-	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB}=-5V, I_E=0, f=1MHz$	-	-	4.5	pF
Input Capacitance	$C_{ib}$	$V_{EB}=-0.5V, I_C=0, f=1MHz$	-	-	10	pF
Small Signal Current Gain	$h_{fe}$	$V_{CE}=-10V, I_C=-2mA, f=1kHz$	50	-	200	
Noise Figure	NF	$V_{CE}=-5V, I_C=-100\mu A$ $R_g=1k\Omega, f=10Hz \sim 15.7kHz$	-	-	5	dB