

查询"2N3043"供应商

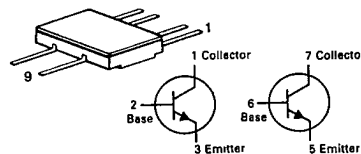
MOTOROLA SC (XSTRS/R F)

96D 82391 D

T-29-27

2N3043
thru
2N3045
2N3048

CASE 610A-04, STYLE 1



DUAL
AMPLIFIER TRANSISTOR

NPN SILICON

MAXIMUM RATINGS

Rating	Symbol	Value		Unit
Collector-Emitter Voltage	V _{CEO}	45		V _{dc}
Collector-Base Voltage	V _{CBO}	45		V _{dc}
Emitter-Base Voltage	V _{EBO}	5.0		V _{dc}
Collector Current — Continuous	I _C	30		mAdc
		One Die	Both Die	
Total Device Dissipation @ T _A = 25°C	P _D	250	350	mW
Derate above 25°C		1.67	2.33	mW/°C
Total Device Dissipation @ T _C = 25°C	P _D	0.7	1.4	Watts
Derate above 25°C		4.67	9.33	mW/°C
Operating and Storage Junction Temperature Range	T _J , T _{stg}	-65 to +200		°C

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted.)

Characteristic	Symbol	Min	Max	Unit
OFF CHARACTERISTICS				
Collector-Emitter Breakdown Voltage(1) (I _C = 10 mAdc, I _B = 0)	V _{(BR)CEO}	45	—	V _{dc}
Emitter-Base Breakdown Voltage (I _E = 10 μAdc, I _C = 0)	V _{(BR)EBO}	5.0	—	V _{dc}
Collector Cutoff Current (V _{CB} = 45 Vdc, I _E = 0) (V _{CB} = 45 Vdc, I _E = 0, T _A = +150°C)	I _{CBO}	—	0.010 10	μAdc
Emitter Cutoff Current (V _{EB} = 4.0 Vdc, I _C = 0)	I _{EBO}	—	0.010	μAdc
ON CHARACTERISTICS				
DC Current Gain(1) (I _C = 10 μAdc, V _{CE} = 5.0 Vdc)	h _{FE}	100	300	—
		50	200	
(I _C = 1.0 mAdc, V _{CE} = 5.0 Vdc)	h _{FE}	130	—	—
		65	—	
Collector-Emitter Saturation Voltage (I _C = 10 mAdc, I _B = 0.5 mAdc)	V _{CE(sat)}	—	1.0	V _{dc}
Base-Emitter On Voltage (I _C = 10 mAdc, V _{CE} = 5.0 Vdc)	V _{BE}	0.6	0.8	V _{dc}
SMALL-SIGNAL CHARACTERISTICS				
Current-Gain — Bandwidth Product (I _C = 1.0 mAdc, V _{CE} = 5.0 Vdc, f = 20 MHz)	f _T	30	—	MHz
Output Capacitance (V _{CB} = 5.0 Vdc, I _E = 0, f = 1.0 MHz)	C _{obo}	—	8.0	pF
Input Impedance (I _C = 1.0 mAdc, V _{CE} = 5.0 Vdc, f = 1.0 kHz)	h _{ie}	3.2k 1.6k	19k 13k	Ohms
Small-Signal Current Gain (I _C = 1.0 mAdc, V _{CE} = 5.0 Vdc, f = 1.0 kHz)	h _{fe}	130 65	600 400	—
Output Admittance (I _C = 1.0 mAdc, V _{CE} = 5.0 Vdc, f = 1.0 kHz)	h _{oe}	— —	100 70	μmhos
Noise Figure (I _C = 10 μAdc, V _{CE} = 5.0 Vdc, R _S = 10 kohms, Bandwidth = 10 Hz to 15.7 kHz)	NF	—	5.0	dB

MOTOROLA SMALL-SIGNAL SEMICONDUCTORS

查询 2N3046 供应商

6367254 MOTOROLA SC (XSTRS/R F)

96D 82392 D

2N3043 thru 2N3045, 2N3048

T-29-27

ELECTRICAL CHARACTERISTICS (continued) ($T_A = 25^\circ\text{C}$ unless otherwise noted.)

Characteristic	Symbol	Min	Max	Unit
MATCHING CHARACTERISTICS				
DC Current Gain Ratio(2) ($I_C = 10\ \mu\text{A}$, $V_{CE} = 5.0\ \text{Vdc}$)	h_{FE1}/h_{FE2}	0.9 0.8	1.0 1.0	—
Base-Emitter Voltage Differential ($I_C = 10\ \mu\text{A}$, $V_{CE} = 5.0\ \text{Vdc}$)	$ V_{BE1} - V_{BE2} $	— —	5.0 10	mVdc
Base-Emitter Voltage Differential Temperature Gradient ($I_C = 10\ \mu\text{A}$, $V_{CE} = 5.0\ \text{Vdc}$, $T_A = -55$ to $+125^\circ\text{C}$)	$\frac{\Delta(V_{BE1} - V_{BE2})}{\Delta T_A}$	— —	10 20	$\mu\text{V}/^\circ\text{C}$

(1) Pulse Test: Pulse Width $\leq 300\ \mu\text{s}$, Duty Cycle $\leq 2.0\%$.(2) The lowest h_{FE} reading is taken as h_{FE1} for this test.