

# 东莞市华远电子有限公司

DONG GUAN SHI HUA YUAN ELECTRON CO.,LTD.

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# TO-92 Plastic-Encapsulate Transistors

**2SC380TM** TRANSISTOR ( NPN )

#### **FEATURE**

Power dissipation

 $P_{CM}$ : 0.3 W (Tamb=25 )

Collector current

I<sub>CM</sub>. 0.05 A

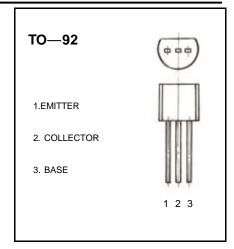
Collector-base voltage

 $V_{(BR)CBO}$ : 35 V

Operating and storage junction temperature range

 $T_{stg}$ : -55 to +150

TJ: 150

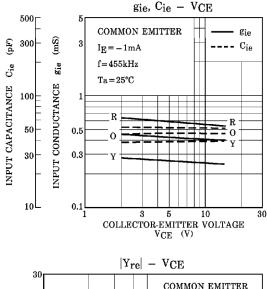


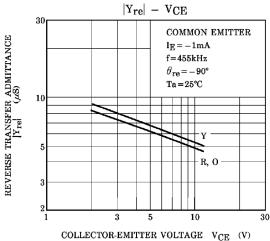
#### ELECTRICAL CHARACTERISTICS (Tamb=25 unless otherwise specified)

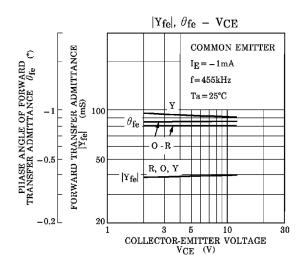
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	V(BR) <sub>CBO</sub>	Ic= 100 μ A , I <sub>E</sub> =0	35			V
Collector-emitter breakdown voltage	V(BR) <sub>CEO</sub>	I <sub>C</sub> = 1mA , I <sub>B</sub> =0	30			V
Emitter-base breakdown voltage	V(BR) <sub>EBO</sub>	I <sub>E</sub> = 100 μ A , I <sub>C</sub> =0	4			V
Collector cut-off current	Ісво	V <sub>CB</sub> = 35V , I <sub>E</sub> =0			0.1	μΑ
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> = 4V, I <sub>C</sub> =0			1.0	μА
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> =12V, I <sub>C</sub> = 2m A	40		240	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = 10mA, I <sub>B</sub> = 1mA			0.4	V
Base-emitter voltage	$V_{BE}$	I <sub>C</sub> = 10mA, I <sub>C</sub> = 1mA			1.0	V
Transition frequency	fт	V <sub>CE</sub> = 5 V, I <sub>C</sub> = 10mA	100			MHz

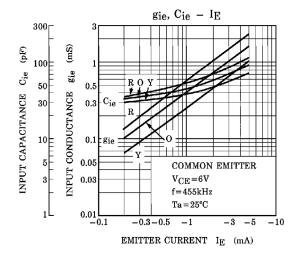
#### CLASSIFICATION OF h<sub>FE(1)</sub>

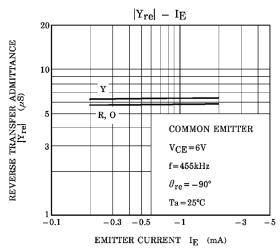
Rank	R	0	Υ
Range	40-80	70-140	120-240

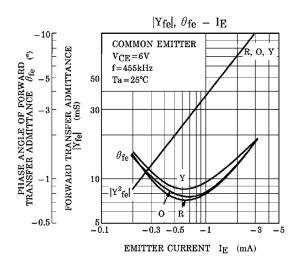


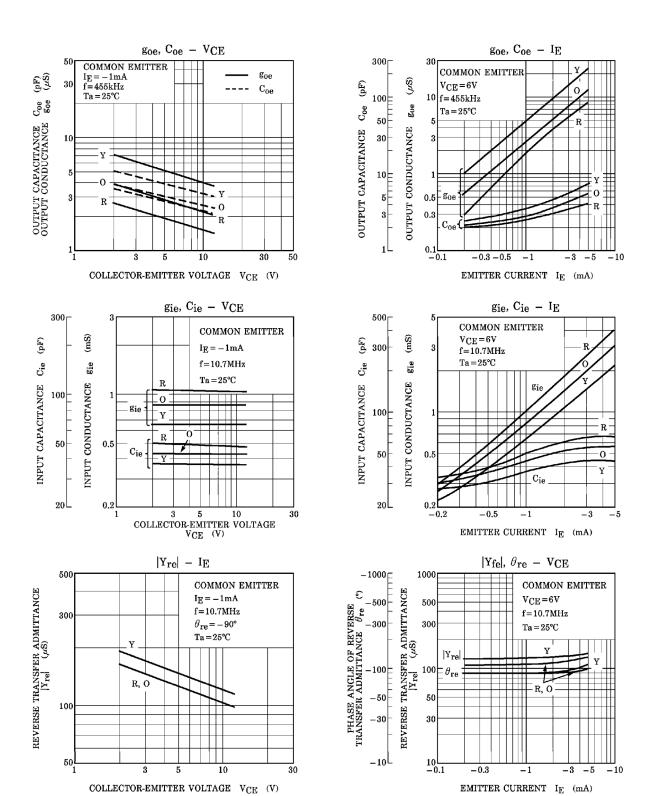






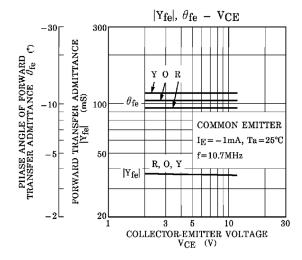


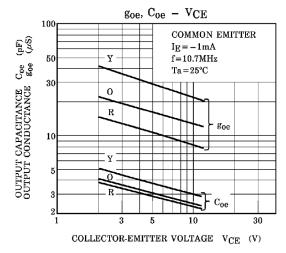


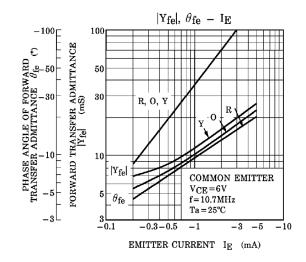


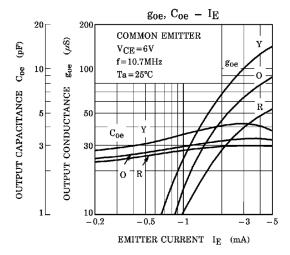
## **Typical Characteristics**

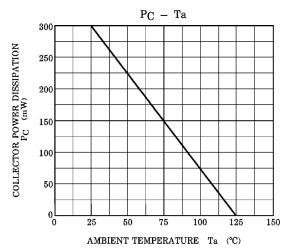
#### 2SC380TM











### **TO-92 PACKAGE OUTLINE DIMENSIONS**





Symbol	Dimensions I	n Millimeters	Dimensions In Inches		
	Min	Max	Min	Max	
Α	3.300	3.700	0.130	0.146	
A1	1.100	1.400	0.043	0.055	
b	0.380	0.550	0.015	0.022	
С	0.360	0.510	0.014	0.020	
D	4.400	4.700	0.173	0.185	
D1	3.430		0.135		
E	4.300	4.700	0.169	0.185	
е	1.270TYP		0.050TYP		
e1	2.440	2.640	0.096	0.104	
L	14.100	14.500	0.555	0.571	
Ö		1.600		0.063	
$\overline{}$	0.000	0.380	0.000	0.015	