

# FUJITSU TRANSISTOR

## 2SC2043

2SC2043 is an NPN epitaxial planar type silicon transistor and is designed for use in output stage of 27MHz-citizen band SSB transceiver application.

This transistor has the following outstanding features.

- \* Power Output 12 Watts.(PEP)
- \* Power Gain 15 dB. (12 W PEP)
- \* Large Surge Capability.

### MAXIMUM RATINGS (Ambient Temperature: 25 °C)

Item	Symbol	Condition	Rating	Unit
Collector-Base Voltage	$V_{CB0}$		70	V
Emitter-Base Voltage	$V_{EB0}$		5	V
Collector-Emitter Voltage	$V_{CER}$	$R_{BE}=100 \text{ ohm}$	70	V
Collector Current	$I_C$	pulse width 20ms duty 50%	8	A
Total Power Dissipation	$P_T$	$T_C=25 \text{ }^\circ\text{C}$	25	W
Junction Temperature	$T_j$		+150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$		-55 ~ +150	$^\circ\text{C}$

### ELECTRICAL CHARACTERISTICS (Ambient Temperature: 25 °C)

Item	Symbol	Test Condition	Limit		Unit
			Min.	Typ. Max.	
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=30 \text{ V}, I_E=0$		10	$\mu\text{A}$
Collector-Base Breakdown Voltage	$BV_{CB0}$	$I_{CB}=0.1 \text{ mA}, I_E=0$	70		V
Emitter-Base Breakdown Voltage	$BV_{EB0}$	$I_{EB}=0.1 \text{ mA}, I_C=0$	5		V
Collector-Emitter Breakdown Voltage	$BV_{CER}$	$I_{CE}=1 \text{ mA}, R_{BE}=100 \text{ ohm}$	70		V
DC Current Gain	$h_{FE}$	$V_{CE}=5 \text{ V}, I_C=0.5 \text{ A}$	20	200	-
Cut-Off Frequency	$f_T$	$V_{CE}=5 \text{ V}, I_C=150 \text{ mA}$		220	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB}=10 \text{ V}, I_E=0, f=1\text{MHz}$		70	100 pF
High Frequency Output Power	$P_{out}$	$f=27\text{MHz}, V_{CC}=12\text{V}, P_{in}=0.2\text{W}$	7.5	8.5	W

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OUTLINE Unit mm

