



**SOT-23 Plastic-Encapsulate Transistors**

F::4 TRANSISTOR(NPN)

SOT-23

FEATURES

- Complimentary to D994
- Collector Current:  $I_c=1.5A$

MARKING: F::4

MAXIMUM RATINGS( $T_A=25^{\circ}C$  unless otherwise noted)



- 1. BASE
- 2. EMITTER
- 3. COLLECTOR

Symbol	Parameter	Value	Units
VCBO	Collector-Base Voltage	40	V
VCEO	Collector-Emitter Voltage	30	V
VEBO	Emitter-Base Voltage	6	V
IC	Collector Current-Continuous	1.5	A
PC	Collector Power Dissipation	0.3	W
TJ	Junction Temperature	150	$^{\circ}C$
Tatg	Storage Temperature	-55-150	$^{\circ}C$

ELECTRICAL CHARACTERISTICS( $T_{amb}=25^{\circ}C$  unless otherwise specified):

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V(BR)_{CBO}$	$I_c=-1mA, I_E=0$	40			V
Collector-emitter breakdown voltage	$V(BR)_{CEO}$	$I_c=-1mA, I_B=0$	30			V
Emitter-base breakdown voltage	$V(BR)_{EBO}$	$I_c=-1mA, I_c=0$	6			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=-40V, I_E=0$			0.1	$\mu A$
Collector cut-off current	$I_{CEO}$	$V_{ce}=-30V, I_B=0$			0.5	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=-5V, I_c=0$			0.1	$\mu A$
DC current gain	HFE	$V_{ce}=-5V, I_c=-1mA$	60		400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_c=-800mA, I_B=-80mA$			0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_c=-800mA, I_B=-80mA$			1.2	V
Gain Bandwidth Product	$F_t$	$V_{CE}=-10V, I_c=-50mA, f=30MHz$	100			MHz
Collector output capacitance	$C_{ob}$	$V_{CB}=-10V, I_E=0, f=1MHz$			20	pF