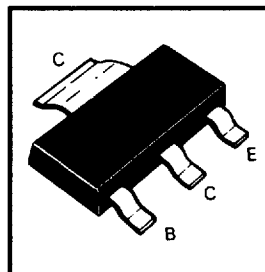


SOT223 NPN SILICON PLANAR SWITCHING TRANSISTOR

FZT2222
FZT2222A

FEATURES

- * H_{FE} SPECIFIED UP TO 500mA.
 - * VERY LOW SATURATION VOLTAGE.
 - * COMPLEMENTARY TYPE -
PARTMARKING DETAILS -
- | | | |
|----------|---|----------|
| FZT2222 | = | FZT2907 |
| FZT2222A | = | FZT2907A |
| FZT2222 | = | FZT2222 |
| FZT2222A | = | FZT2222A |



ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	FZT2222	FZT2222A	UNIT
Collector-Base Voltage	V_{CB0}	60	75	V
Collector-Emitter Voltage	V_{CE0}	30	40	V
Emitter-Base Voltage	V_{EB0}	5	5	V
Continuous Collector Current	I_C	600	600	mA
Power Dissipation @ $T_{amb}=25^{\circ}C$	P_{TOT}	2	2	W
Operating And Storage Temperature Range	$t_j:t_{stg}$	-55 TO +150		$^{\circ}C$

FZT2222 FZT2222A

ELECTRICAL CHARACTERISTICS (at $T_{amb}=25^{\circ}\text{C}$ unless otherwise stated)

PARAMETER	SYMBOL	FZT2222		FZT2222A		UNIT	CONDITIONS
		MIN	MAX	MIN	MAX		
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	60		75		V	$I_C=10\mu\text{A}$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	30		40		V	$I_C=10\text{mA}$ *
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	5		5		V	$I_E=10\mu\text{A}$
Collector Cut-Off Current	I_{CBO}		10 10		10 10	nA μA	$V_{CB}=50\text{V}$ $V_{CB}=50\text{V}$, $T_a=150^{\circ}\text{C}$
Collector-Emitter Cut-Off Current	I_{CEX}		10		10	nA	$V_{CE}=60\text{V}$, $V_{BE(off)}=3\text{V}$
Emitter Cut-Off Current	I_{EBO}		10		10	nA	$V_{EB}=3\text{V}$
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$		0.4 1.6	0.6	0.3 1.0	V V	$I_C=150\text{mA}$, $I_B=15\text{mA}$ * $I_C=500\text{mA}$, $I_B=50\text{mA}$ *
Base-Emitter Saturation Voltage	$V_{BE(SAT)}$	0.6	2.0 2.6	0.6	1.2 2.0	V V	$I_C=150\text{mA}$, $I_B=15\text{mA}$ * $I_C=500\text{mA}$, $V_{CE}=50\text{mA}$ *
Static Forward Current Transfer Ratio	H_{FE}	35 50 75 100 50 30	300	35 50 75 100 50 30	300		$I_C=0.1\text{mA}$, $V_{CE}=10\text{V}$ * $I_C=1\text{mA}$, $V_{CE}=10\text{V}$ * $I_C=10\text{mA}$, $V_{CE}=10\text{V}$ * $I_C=150\text{mA}$, $V_{CE}=10\text{V}$ * $I_C=150\text{mA}$, $V_{CE}=1\text{V}$ * $I_C=500\text{mA}$, $V_{CE}=10\text{V}$ *
Transition Frequency	f_T	250		300		MHz	$I_C=20\text{mA}$, $V_{CE}=20\text{V}$ $f=1\text{MHz}$
Output Capacitance	C_{obo}		8		8	pF	$V_{CB}=10\text{V}$, $f=140\text{KHz}$
Input Capacitance	C_{ibo}		30		30	pF	$V_{BE}=1.5\text{V}$, $f=140\text{KHz}$
Delay Time	t_d		10		10	ns	$V_{CC}=30\text{V}$, $V_{BE(off)}=0.5\text{V}$, $I_C=150\text{mA}$, $I_B=15\text{mA}$
Rise Time	t_r		25		25	ns	
Storage Time	t_s		225		225	ns	$V_{CC}=30\text{V}$, $I_C=150\text{mA}$, $V_{BE(off)}=0.5\text{V}$, $I_{B1}=I_{B2}=15\text{mA}$
Fall time	t_f		60		60	ns	
Noise Figure	N		4		4	dB	$I_C=200\text{mA}$, $V_{CE}=5\text{V}$, $R_g=2\text{K}\Omega$, $f=1\text{KHz}$, $f=200\text{Hz}$

* Measured under pulsed conditions. Pulse width=300 μs . Duty cycle $\leq 2\%$