

# SOT89 PNP SILICON PLANAR HIGH VOLTAGE TRANSISTOR

## FCX558

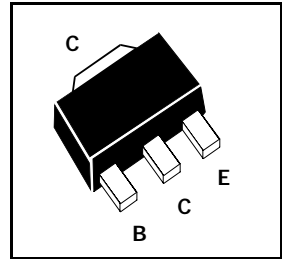
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### FEATURES

- \* 400 Volt  $V_{CEO}$
- \*  $P_{tot}$  = 1 Watt

COMPLEMENTARY TYPE – FCX458

PARTMARKING DETAIL – P58



### ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	$V_{CBO}$	-400	V
Collector-Emitter Voltage	$V_{CEO}$	-400	V
Emitter-Base Voltage	$V_{EBO}$	-5	V
Continuous Collector Current	$I_C$	-200	mA
Peak Pulse Current	$I_{CM}$	-500	mA
Power Dissipation at $T_{amb}=25^{\circ}C$	$P_{tot}$	1	W
Operating and Storage Temperature Range	$T_j, T_{stg}$	-65 to +150	$^{\circ}C$

### ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^{\circ}C$ ).

PARAMETER	SYMBOL	MIN.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-400		V	$I_C = -100\mu A$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-400		V	$I_C = -10mA^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5		V	$I_E = -100\mu A$
Collector Cut-Off Current	$I_{CBO}, I_{CES}$		-100	nA	$V_{CB} = -320V; V_{CES} = 320V$
Emitter Cut-Off Current	$I_{EBO}$		-100	nA	$V_{EB} = -4V$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		-0.2 -0.5	V	$I_C = -20mA, I_B = -2mA^*$ $I_C = -50mA, I_B = -6mA^*$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		-0.9	V	$I_C = -50mA, I_B = -5mA^*$
Base-Emitter Turn On Voltage	$V_{BE(on)}$		-0.9	V	$I_C = -50mA, V_{CE} = -10V^*$
Static Forward Current Transfer Ratio	$h_{FE}$	100 100 15	300		$I_C = -1mA, V_{CE} = -10V$ $I_C = -50mA, V_{CE} = -10V^*$ $I_C = -100mA, V_{CE} = -10V^*$
Transition Frequency	$f_T$	50		MHz	$I_C = -10mA, V_{CE} = -20V$ $f = 20MHz$
Collector-Base Breakdown Voltage	$C_{obo}$		5	pF	$V_{CB} = -20V, f = 1MHz$
Switching times	$t_{on}$ $t_{off}$		95 Typical 1600 Typical	ns ns	$I_C = -50mA, V_C = -100V$ $I_{B1} = -5mA, I_{B2} = -10mA$

\*Measured under pulsed conditions. Pulse width=300 $\mu s$ . Duty cycle  $\leq 2\%$   
Spice parameter data is available upon request for this device  
For typical characteristics graphs see FZT558 datasheet.