SEMICONDUCTOR
TECHNICAL DATA

FTC2389S

FTC2389S TRANSISTOR (NPN)

TO – 92S

1. EMITTER
2. COLLECTOR
3. BASE

FEATURES

- High Breakdown Voltage.
- Complements the FTA1038S.

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	120	V
V_{CEO}	Collector-Emitter Voltage	120	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	50	mA
P_C	Collector Power Dissipation	300	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	417	℃/W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~+150	℃

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=50μA,I_E=0	120			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=1mA,I_B=0	120			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=50μA,I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}=100V,I_E=0			0.5	μA
Emitter cut-off current	I_{EBO}	V_{EB}=4V,I_C=0			0.5	μA
DC current gain	h_{FE}	V_{CE}=6V, I_C=2mA	180		560	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=10mA,I_B=1mA			0.5	V
Collector output capacitance	C_{ob}	V_{CB}=12V,I_E=0, f=1MHz		2.5		pF
Transition frequency	f_T	V_{CE}=12V,I_C=2mA, f=100MHz		140		MHz

CLASSIFICATION OF h_{FE}

RANK	R	S
RANGE	180-390	270-560