

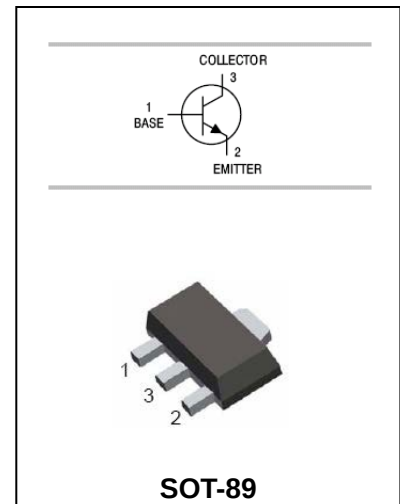
NPN Silicon Planar High Voltage Transistor

FCX458

FEATURES

- Complementary type: FCX558
- 400Volt V_{CEO}

HF



ORDERING INFORMATION

Type No.	Marking	Package Code
FCX458	N58	SOT-89

MAXIMUM RATING @ $T_a=25^{\circ}\text{C}$ unless otherwise specified

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	400	V
V_{CEO}	Collector-Emitter Voltage	400	V
V_{EBO}	Emitter-Base Voltage	5	V
I_{CM}	Peak Pulse Current	500	mA
I_C	Collector Current -Continuous	225	mA
P_D	Power Dissipation	1	W
T_J, T_{STG}	Junction and Storage Temperature	-65 to +150	$^{\circ}\text{C}$

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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	400			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=10mA, I_B=0$	400			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB}=320V$			100	nA
Collector-Emitter Cut-Off Current	I_{CES}	$V_{CES}=320V$			100	nA
Emitter cut-off current	I_{EBO}	$V_{EB}=4V$			100	nA
DC current gain	h_{FE}	$V_{CE}=10V, I_C=1mA$ $V_{CE}=10V, I_C=50mA$ $V_{CE}=10V, I_C=100mA$	100 100 15		300	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=20mA, I_B=2mA$ $I_C=50mA, I_B=5mA$			0.2 0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=50mA, I_B=5mA$			0.9	V
Base-emitter Turn-on Voltage	$V_{BE(on)}$	$I_C=50mA, V_{CE}=10V$			0.9	V
Transition frequency	f_T	$V_{CE}=20V, I_C=10mA,$ $f=20MHz$	50			MHz
Collector output capacitance	C_{ob}	$V_{CB}=20V, f=1MHz$			5	pF

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TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

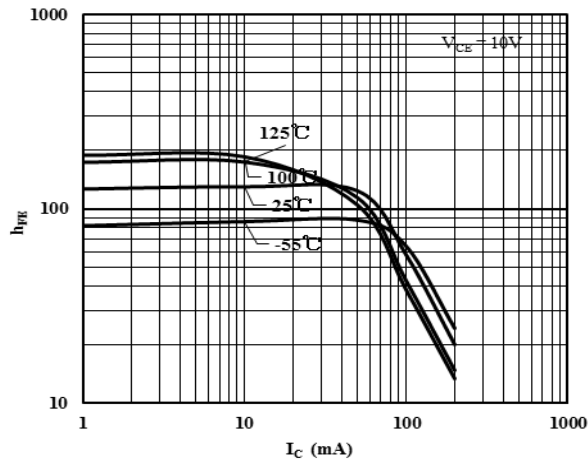


Fig 1 h_{FE} vs. I_C

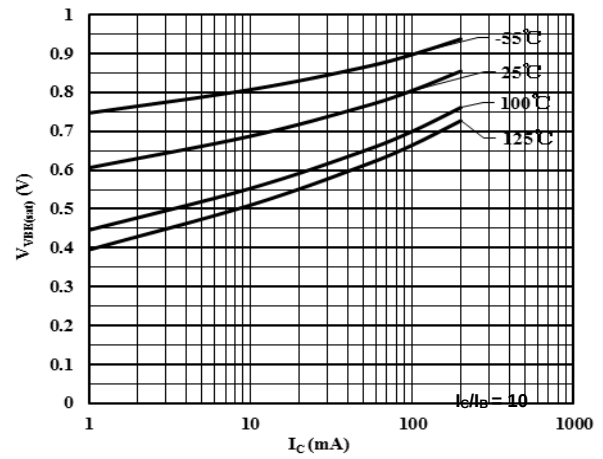


Fig 2 $V_{BE(sat)}$ vs. I_C

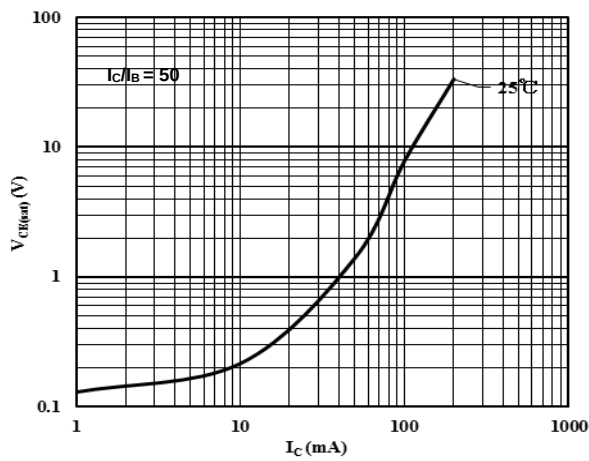


Fig 3 $V_{CE(sat)}$ vs. I_C

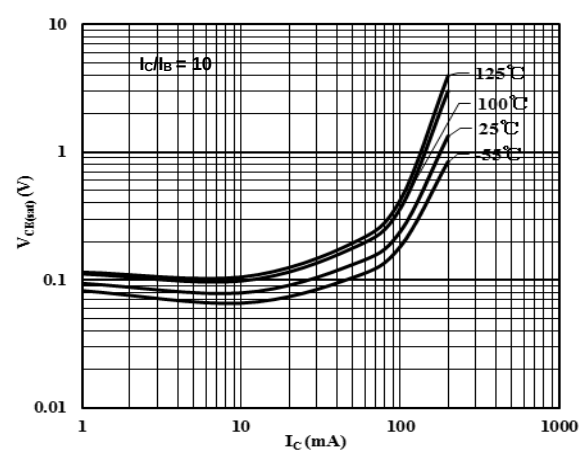


Fig 4 $V_{CE(sat)}$ vs. I_C

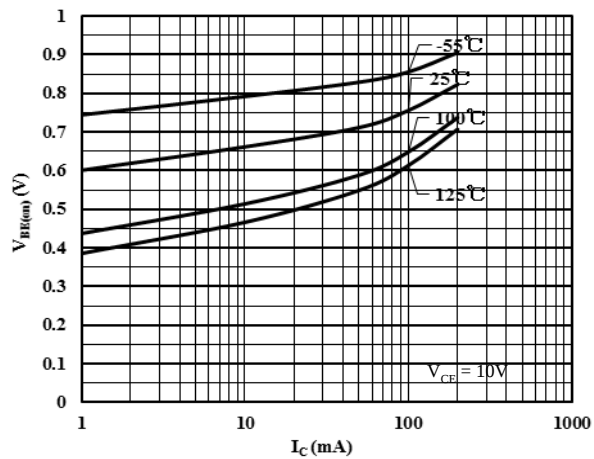


Fig 5 $V_{BE(ON)}$ vs. I_C

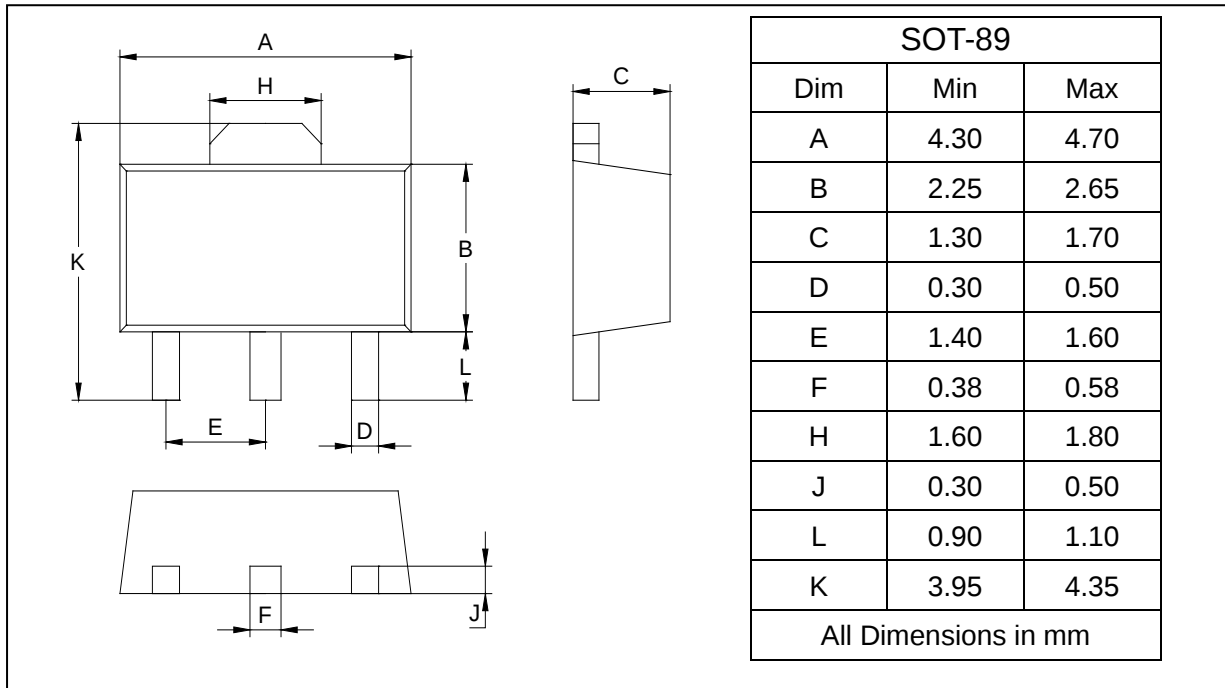
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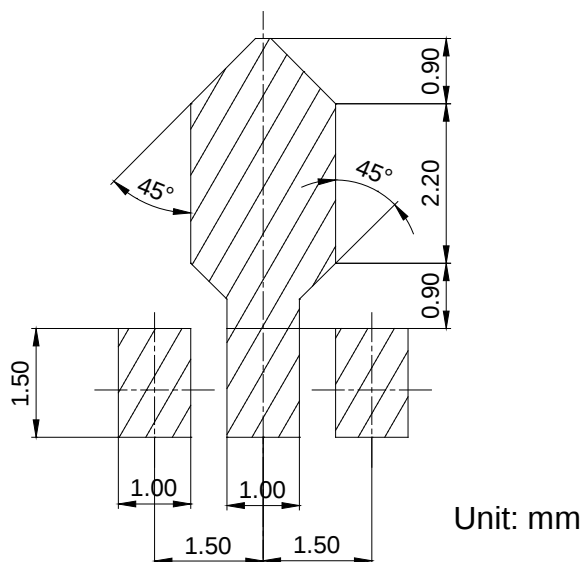
PACKAGE OUTLINE

Plastic surface mounted package

SOT-89



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
FCX458	SOT-89	1000 pcs / Tape & Reel