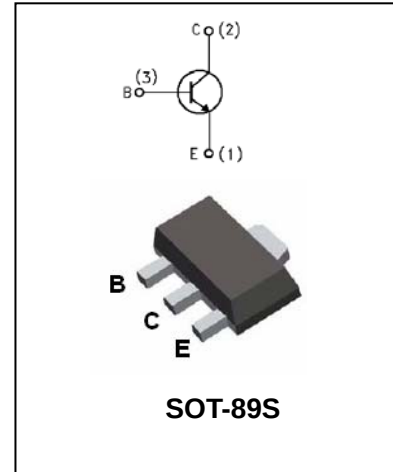


High Voltage Fast Switching NPN Power Transistor

T2095

FEATURES

- High breakdown voltage
- High current capability
- High switching speed
- High reliability
- RoHS product



APPLICATIONS

- Battery charger
- Electronic ballasts
- High frequency switching power supply
- High frequency power transform
- Commonly power amplifier

ORDERING INFORMATION

Type No.	Marking	Package Code
T2095	T2095	SOT-89S

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	700	V
V_{CEO}	Collector-Emitter Voltage	450	V
V_{EBO}	Emitter-Base Voltage	12	V
I_C	Collector Current -Continuous	0.8	A
I_{CP}	Collector Current (pulse)	1.6	A
P_C	Collector Dissipation	1	W
$T_{j,}$	Junction Temperature	150	°C
T_{stg}	Storage Temperature	-55 to +150	°C

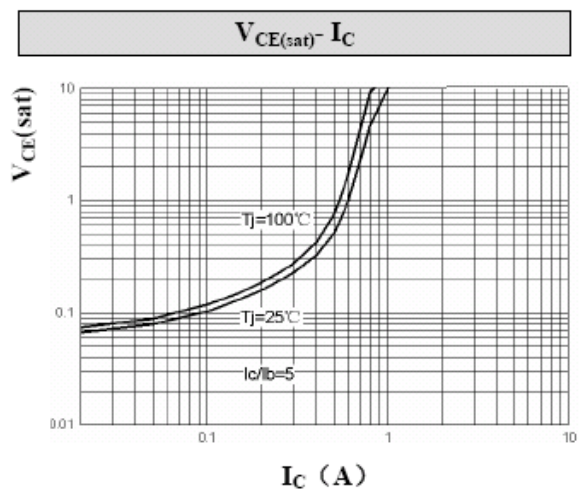
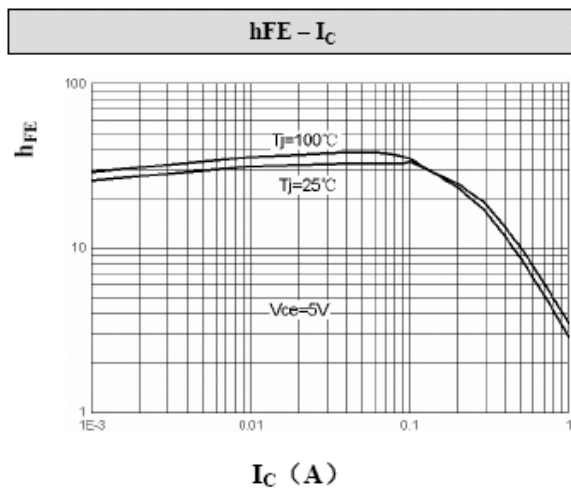
High Voltage Fast Switching NPN Power Transistor

T2095

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=1mA, I_E=0$	700	800		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=10mA, I_B=0$	450	500		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=1mA, I_C=0$	12	15		V
Collector cut-off current	I_{CBO}	$V_{CB}=700V, I_E=0$			5	μA
Collector cut-off current	I_{CEO}	$V_{CE}=450V, I_E=0$			10	mA
Emitter cut-off current	I_{EBO}	$V_{EB}=10V, I_C=0$			5	μA
DC current gain	h_{FE}	$V_{CE}=10V, I_C=5mA$	13			
		$V_{CE}=10V, I_C=130mA$	20	25	40	
		$V_{CE}=10V, I_C=500mA$	8	12		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=0.35A, I_B=50mA$		0.4	0.8	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=0.6A, I_B=50mA$		1.0	1.4	V
storage time	t_s	$V_{CC}=125V$ $I_C=0.1A, I_{B1}=-I_{B2}=0.02A$			5	μs
rise time	t_r				1.0	μs
fall time	t_f				0.7	μs
Transition frequency	f_T	$V_{CE}=10V, I_C=0.1A$	4			MHz

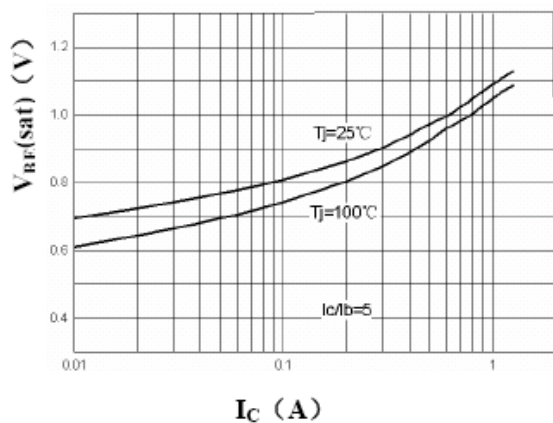
TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified



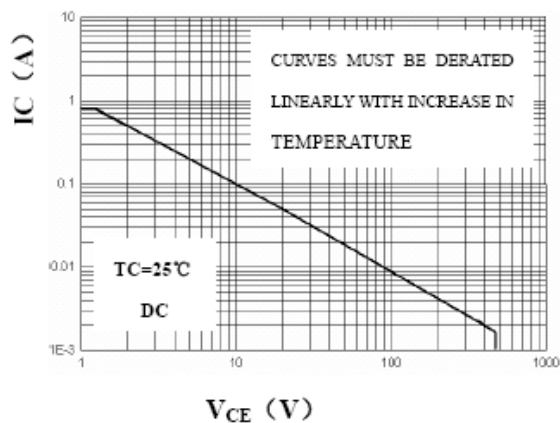
High Voltage Fast Switching NPN Power Transistor

T2095

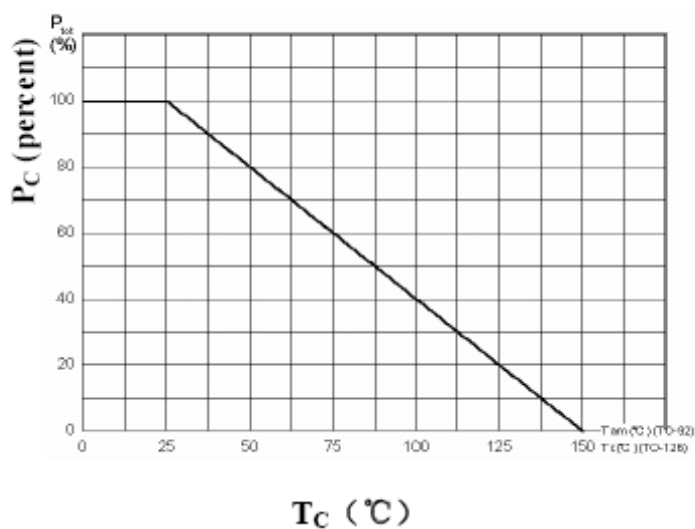
$V_{BE(sat)} - I_C$



SOA



$P_C - T_C$



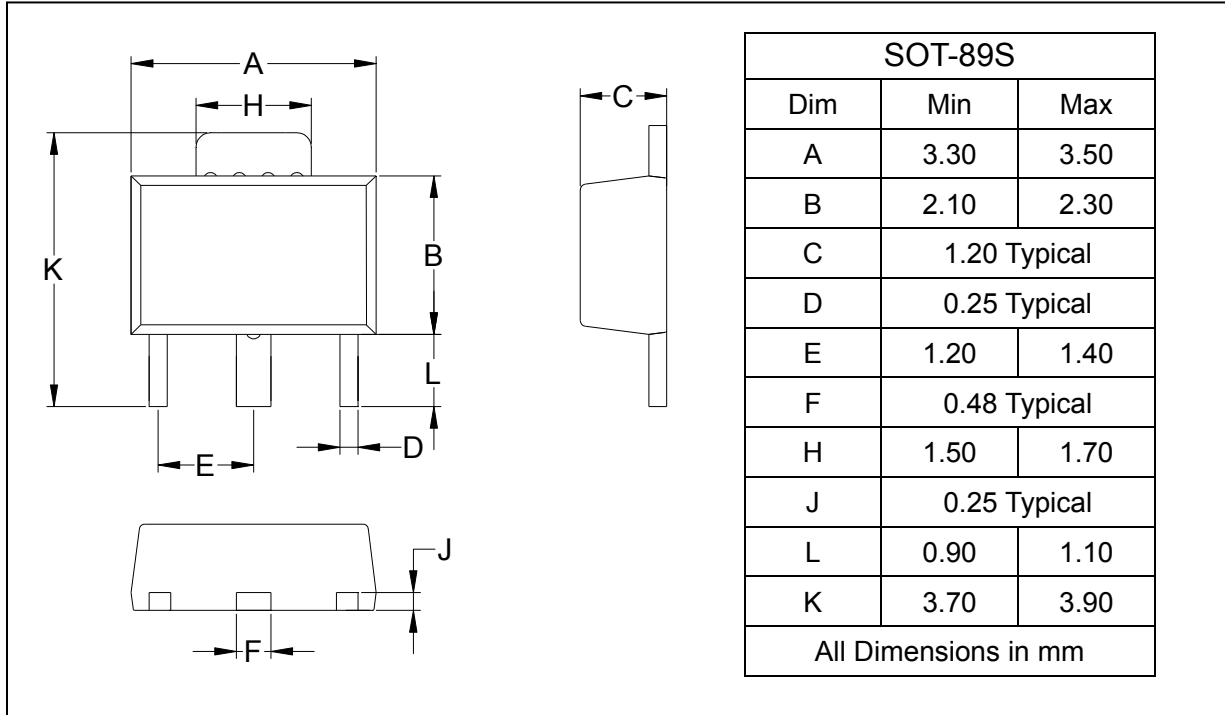
High Voltage Fast Switching NPN Power Transistor

T2095

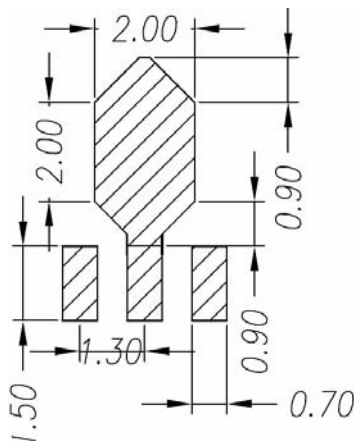
PACKAGE OUTLINE

Plastic surface mounted package

SOT-89S



SOLDERING FOOTPRINT



Unit:mm

PACKAGE INFORMATION

Device	Package	Shipping
T2095	SOT-89S	1000/Tape&Reel