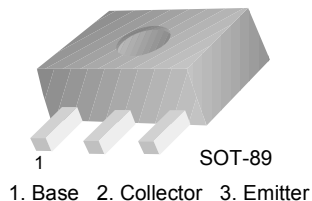


KSC2881

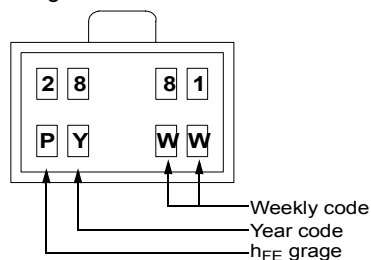
NPN Epitaxial Silicon Transistor

Power Amplifier

- Collector-Emitter Voltage : $V_{CE0}=120V$
- Current Gain Bandwidth Product : $f_T=120MHz$
- Collector Dissipation : $P_C=1\sim 2W$ in Mounted on Ceramic Board
- Complement to KSA1201



Marking



Absolute Maximum Ratings $T_a = 25^\circ C$ unless otherwise noted

Symbol	Parameter	Value	Units
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	800	mA
I_B	Base Current	160	mA
P_C P_C^*	Collector Power Dissipation	500 1,000	mW mW
T_J	Junction Temperature	150	$^\circ C$
T_{STG}	Storage Temperature	-55 ~ 150	$^\circ C$

* Mounted on Ceramic Board (250mm² x 0.8mm)

Electrical Characteristics $T_a = 25^\circ C$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CEO}	Collector-Emitter Breakdown Voltage	$I_C = 10\mu A, I_B = 0$	120			V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E = 1mA, I_C = 0$	5			V
I_{CBO}	Collector Cut-off Current	$V_{CB} = 120V, I_E = 0$			100	nA
I_{EBO}	Emitter Cut-off Current	$V_{BE} = 5V, I_C = 0$			100	nA
h_{FE}	DC Current Gain	$V_{CE} = 5V, I_C = 100mA$	80		240	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 500mA, I_B = 50mA$			1.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	$V_{CE} = 5V, I_C = 500mA$			1.0	V
f_T	Current Gain Bandwidth Product	$V_{CE} = 5V, I_C = 100mA$		120		MHz
C_{ob}	Output Capacitance	$V_{CB} = 10V, I_E = 0, f = 1MHz$			30	pF

h_{FE} Classification

Classification	O	Y
h_{FE}	80 ~ 160	120 ~ 240

Package Marking and Ordering Information

Device Marking	Device	Package	Reel Size	Tape Width	Quantity
2881	KSC2881	SOT-89	13"	--	4,000

Typical Performance Characteristics

Figure 1. Static Characteristic

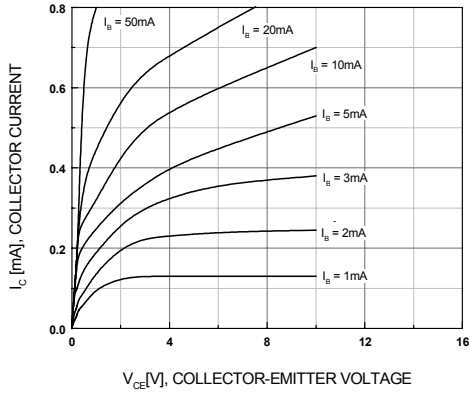


Figure 2. Base-Emitter On Voltage

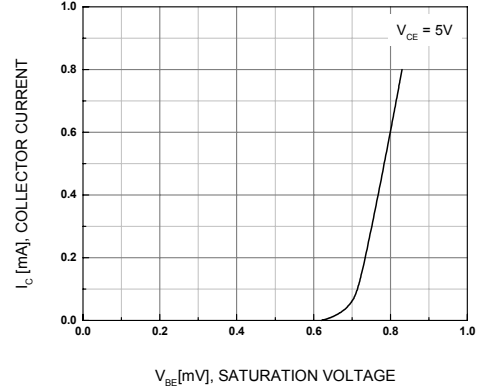


Figure 3. DC Current Gain

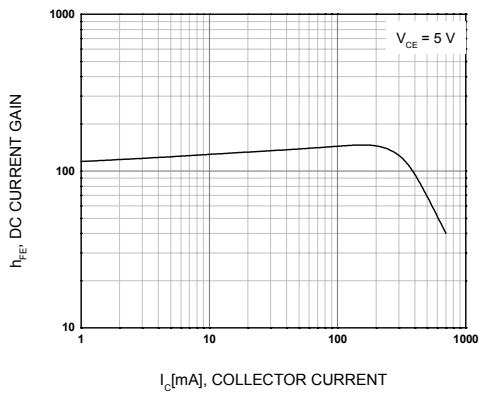


Figure 4. Collector-Emitter Saturation Voltage

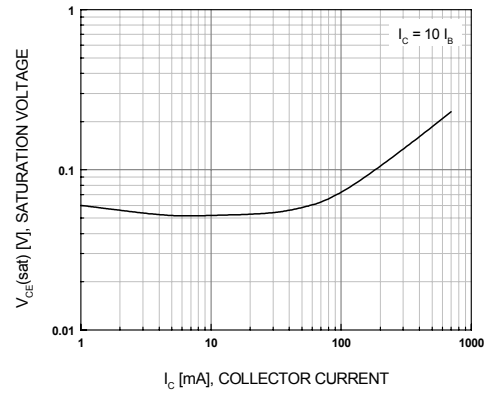


Figure 5. Power Derating

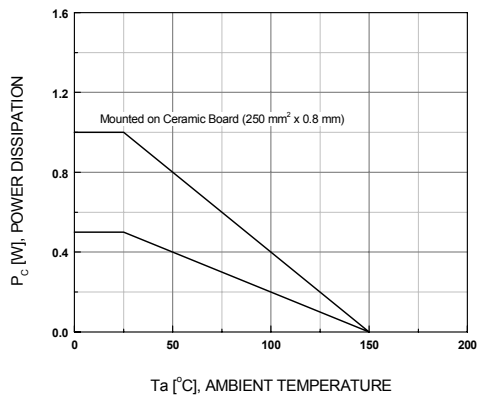
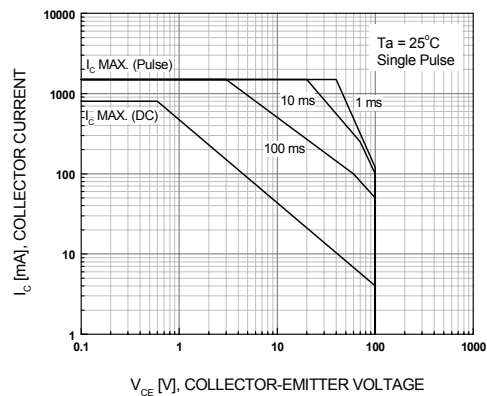
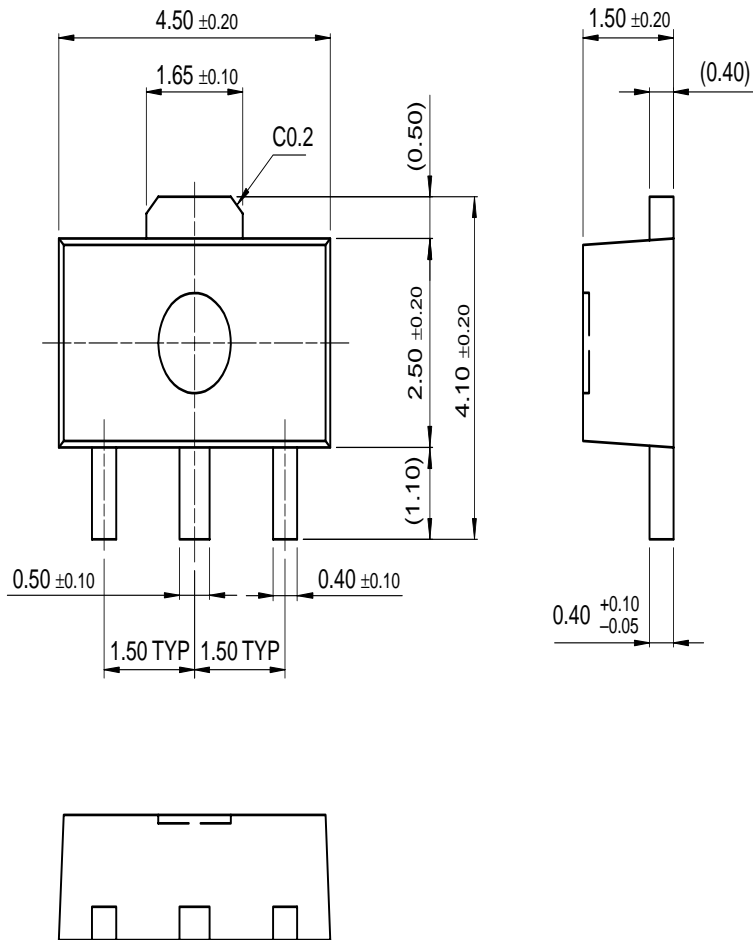


Figure 6. Safe Operating Area



Mechanical Dimensions

SOT-89



Dimensions in Millimeters

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CROSSVOLT™	GTO™	MICROWIRE™	Quiet Series™	UHC™
DOME™	HiSeC™	MSX™	RapidConfigure™	UltraFET®
EcoSPARK™	I ² C™	MSXPro™	RapidConnect™	UniFET™
E ² CMOS™	i-Lo™	OCX™	μSerDes™	VCX™
EnSigna™	ImpliedDisconnect™	OCXPro™	SILENT SWITCHER®	Wire™
FACT™	IntelliMAX™	OPTOLOGIC®	SMART START™	
FACT Quiet Series™		OPTOPLANAR™	SPM™	
Across the board. Around the world.™		PACMAN™	Stealth™	
The Power Franchise®		POP™	SuperFET™	
Programmable Active Droop™		Power247™	SuperSOT™-3	
		PowerEdge™	SuperSOT™-6	

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