

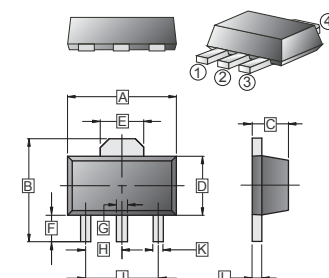
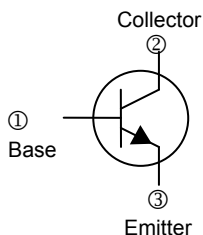
RoHS Compliant Product

A suffix of "-C" specifies halogen & lead-free

SOT-89

FEATURES

- Low saturation voltage, typically $V_{CE(SAT)}=0.1V$ at $I_C/I_B=1A/50mA$.
- Excellent DC current gain characteristics.
- Complements the 2SA1797



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	4.40	4.60	G	0.40	0.58
B	3.94	4.25	H	1.50	TYP
C	1.40	1.60	J	3.00	TYP
D	2.30	2.60	K	0.32	0.52
E	1.50	1.70	L	0.35	0.44
F	0.89	1.20			

ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ C$ unless otherwise specified)

PARAMETER	SYMBOL	RATING	UNIT
Collector to Base Voltage	V_{CBO}	60	V
Collector to Emitter Voltage	V_{CEO}	50	V
Emitter to Base Voltage	V_{EBO}	6	V
Continuous Collector Current	I_C	2	A
Collector Power Dissipation	P_C	500	mW
Junction, Storage Temperature	T_J, T_{STG}	150, -55~150	$^\circ C$

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ C$ unless otherwise specified)

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITION
Collector to Base Breakdown Voltage	$V_{(BR)CBO}$	60	-	-	V	$I_C=50\mu A, I_E=0$
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	50	-	-	V	$I_C=1mA, I_B=0$
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	6	-	-	V	$I_E=50\mu A, I_C=0$
Collector Cut-Off Current	I_{CBO}	-	-	0.1	μA	$V_{CB}=60V, I_E=0$
Emitter Cut-Off Current	I_{EBO}	-	-	0.1	μA	$V_{EB}=5V, I_C=0$
DC Current Gain	h_{FE}	82	-	270		$V_{CE}=2V, I_C=0.5A$
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	0.35	V	$I_C=1A, I_B=50mA$
Transition Frequency	f_T	-	210	-	MHz	$V_{CE}=2V, I_C=500mA, f=100MHz$
Collector Output Capacitance	C_{ob}	-	25	-	pF	$V_{CB}=10V, I_E=0, f=1MHz$

CLASSIFICATION OF h_{FE}

Rank	P	Q
Range	82~180	120~270
Marking	DKP	DKQ

CHARACTERISTIC CURVES

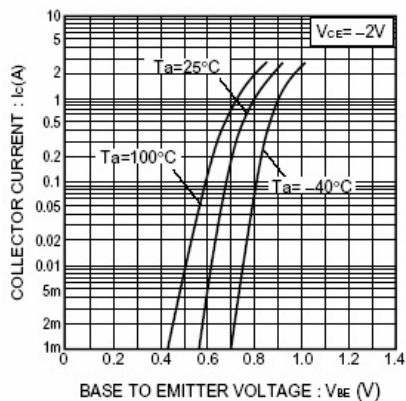


Fig.1 Grounded emitter propagation characteristics

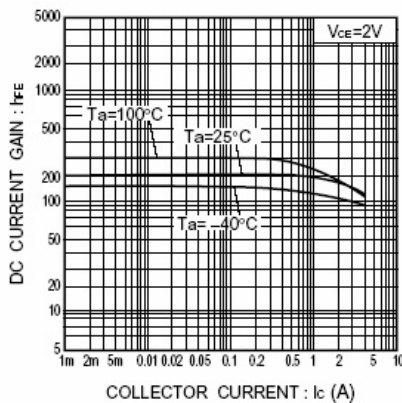


Fig.2 DC current gain vs. collector current

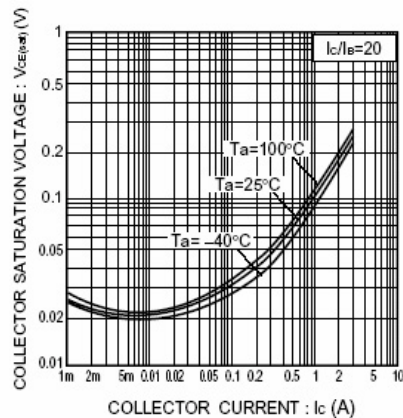


Fig.3 Collector-emitter saturation voltage vs. collector current

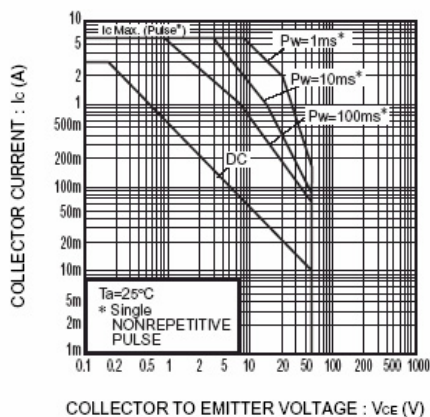


Fig.4 Safe Operating area