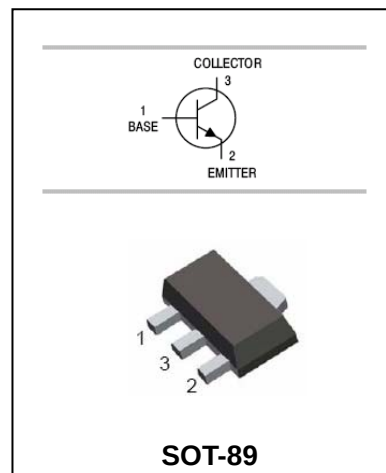


Silicon NPN epitaxial planer type

2SD874/2SD874A

FEATURES

- Large collector power dissipation P_C .
- Low collector to emitter saturation voltage $V_{CE(sat)}$.
- Complementary to 2SB766 and 2SB766A.



ORDERING INFORMATION

Type No.	Marking	Package Code
2SD874	ZQ/ZR/ZS	SOT-89
2SD874A	YQ/YR/YS	SOT-89

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

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage 2SD874 2SD874A	30 60	V
V_{CEO}	Collector-Emitter Voltage 2SD874 2SD874A	25 50	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	1	A
P_C	Collector power dissipation	1	W
T_j	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55 to +150	$^\circ\text{C}$



Silicon NPN epitaxial planer type

2SD874/2SD874A

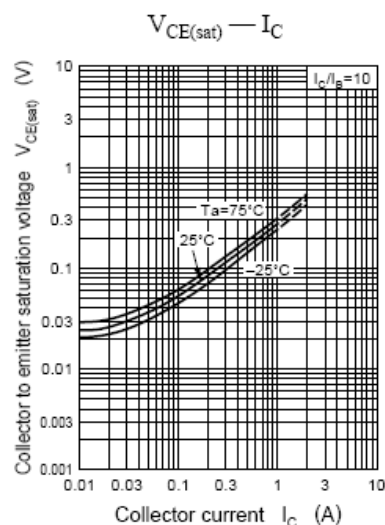
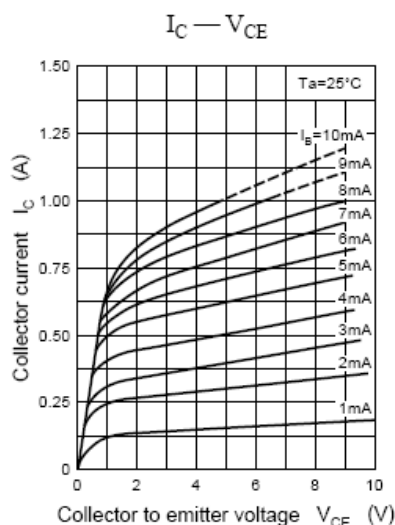
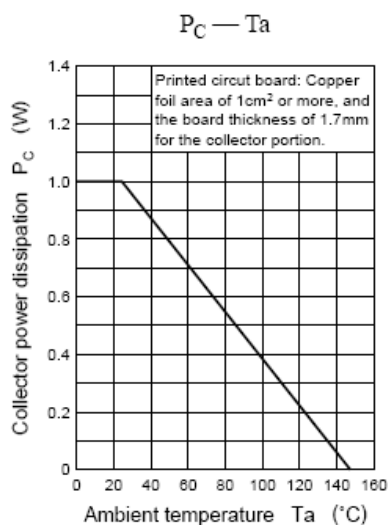
ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage 2SD874 2SD874A	$V_{(BR)CBO}$	$I_C=10\mu A, I_E=0$	30 60			V
Collector-emitter breakdown voltage 2SD874 2SD874A	$V_{(BR)CEO}$	$I_C=2mA, I_B=0$	25 50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB}=20V, I_E=0$			0.1	μA
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C/I_B=0.5A/0.05A$		0.2	0.4	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C/I_B=0.5A/0.05A$		0.85	1.2	V
DC current gain(note)	h_{FE}	$V_{CE}=10V, I_C=0.5A$	85		340	
		$V_{CE}=5V, I_C=1A$	50			
Current gain bandwidth product	f_T	$V_{CE}=10V, I_E=0.05A,$ $f=200MHz$		200		MHz
Output Capacitance	C_{ob}	$V_{CB}=10V,$ $f=1MHz, I_E=0$			20	pF

CLASSIFICATION OF h_{FE2}

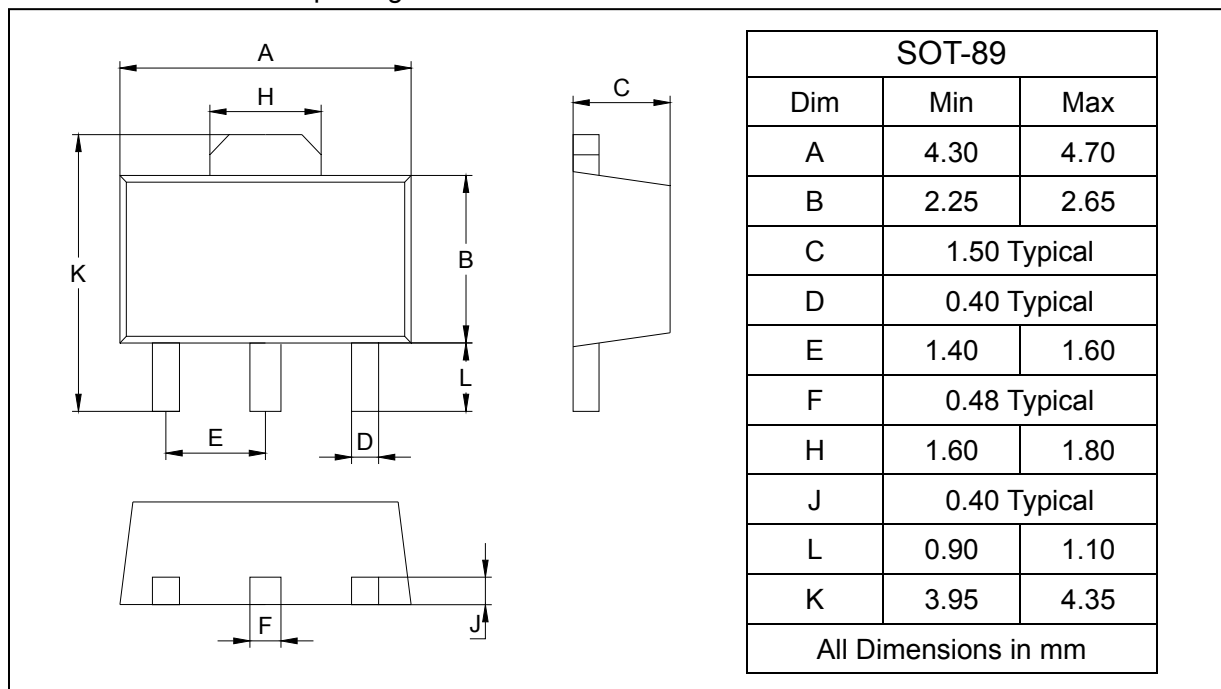
RANK	Q	R	S
RANGE	85-170	120-240	170-340
MARKING 2SD874 2SD874A	ZQ YQ	ZR YR	ZS YS

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

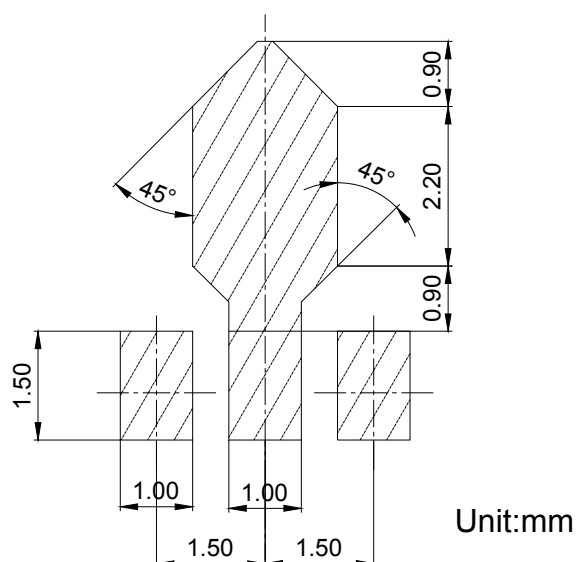


2SD874/2SD874A

SOT-89



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
2SD874/2SD874A	SOT-89	1000/Tape&Reel