



Features

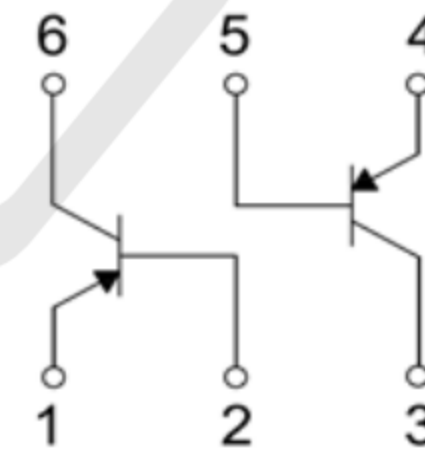
- Epitaxial planar die construction
- Ideal for low power amplification and switching

Ordering Information

- Shipping Qty:3000/7inch Tape& Reel



Circuit Diagram



Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)

Symbol	Parameter	Value	Units
V _{CBO}	Collector-Base Voltage	-40	V
V _{CEO}	Collector-Emitter Voltage	-40	V
V _{EBO}	Emitter-Base Voltage	-5	V
I _C	Collector Current -Continuous	-0.2	A
P _C	Collector Power Dissipation	0.2	W
R _{θJA}	Thermal Resistance. Junction to Ambient Air	625	°C/W
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55-150	°C

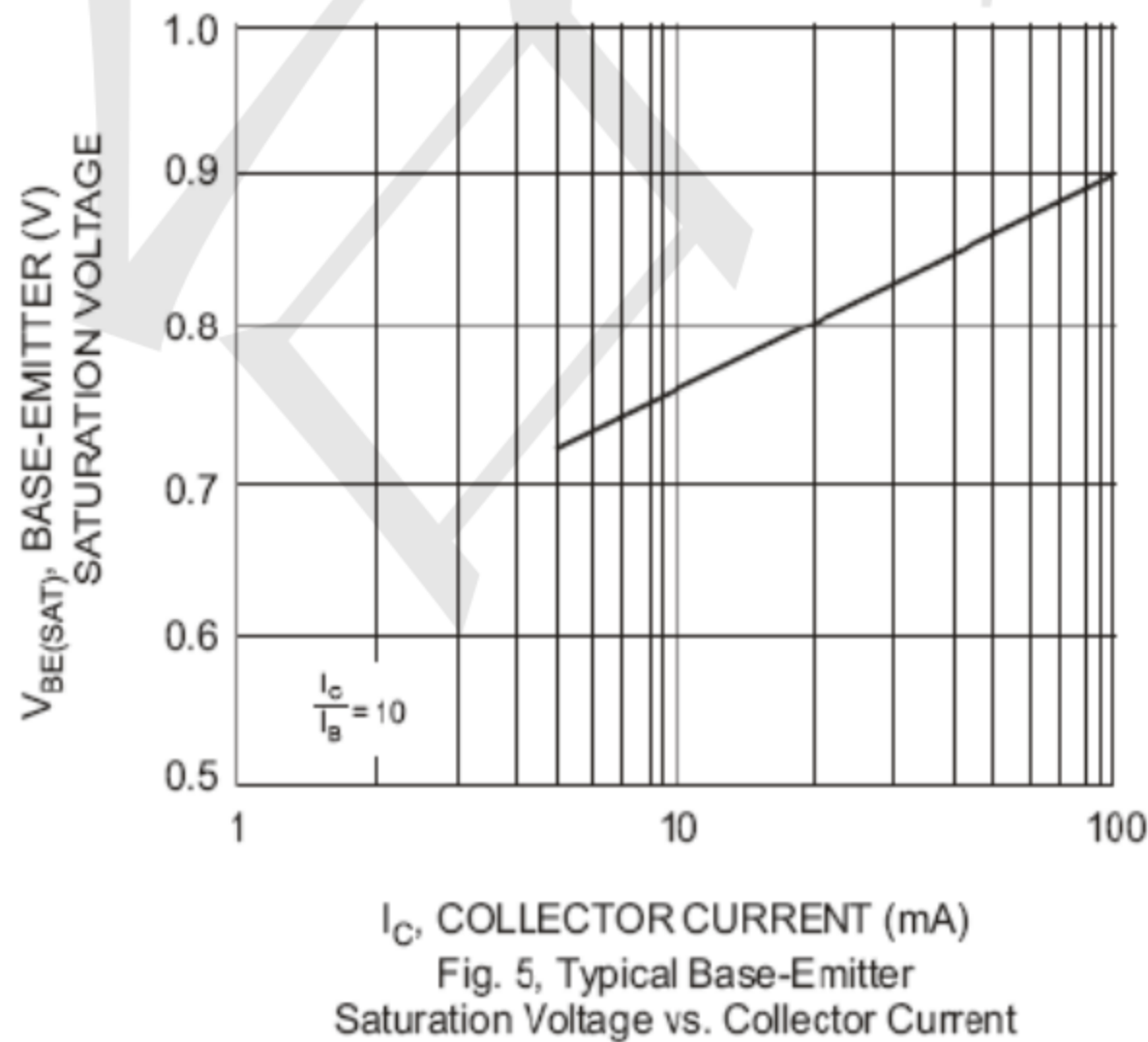
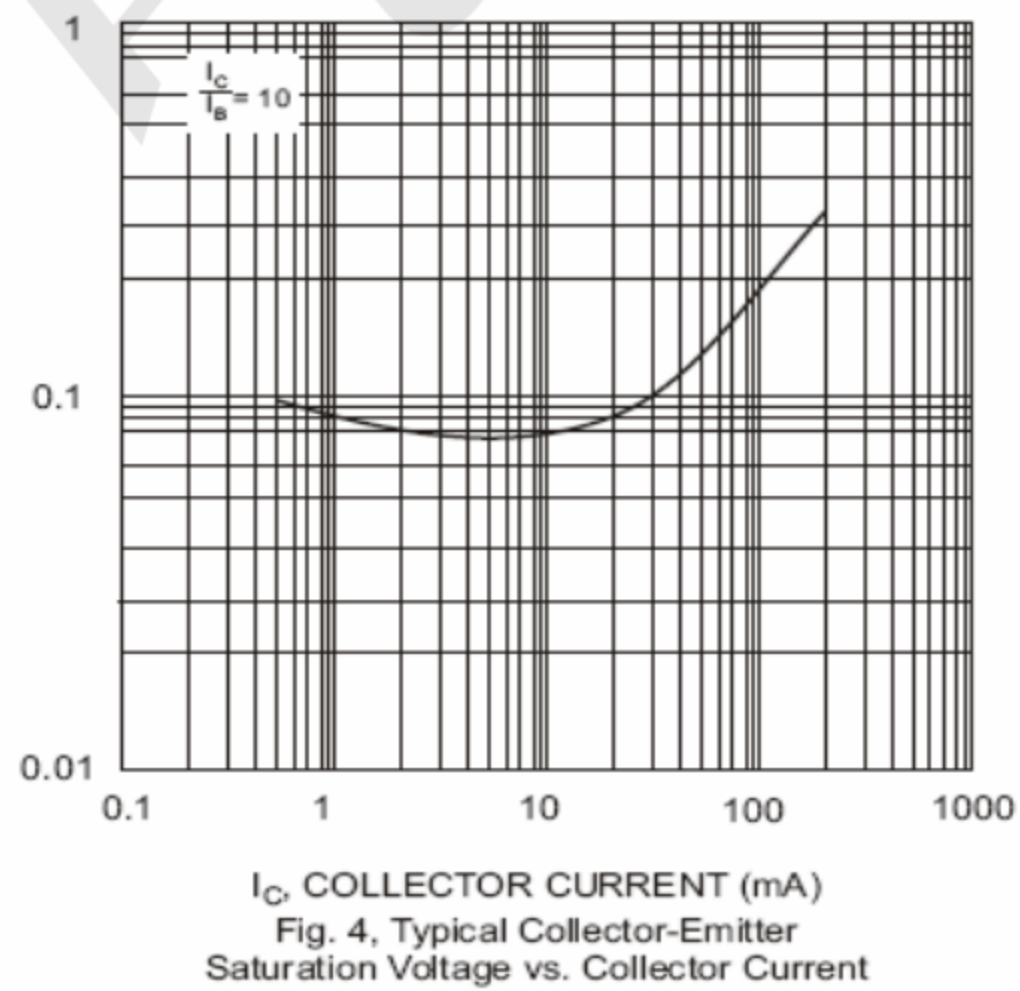
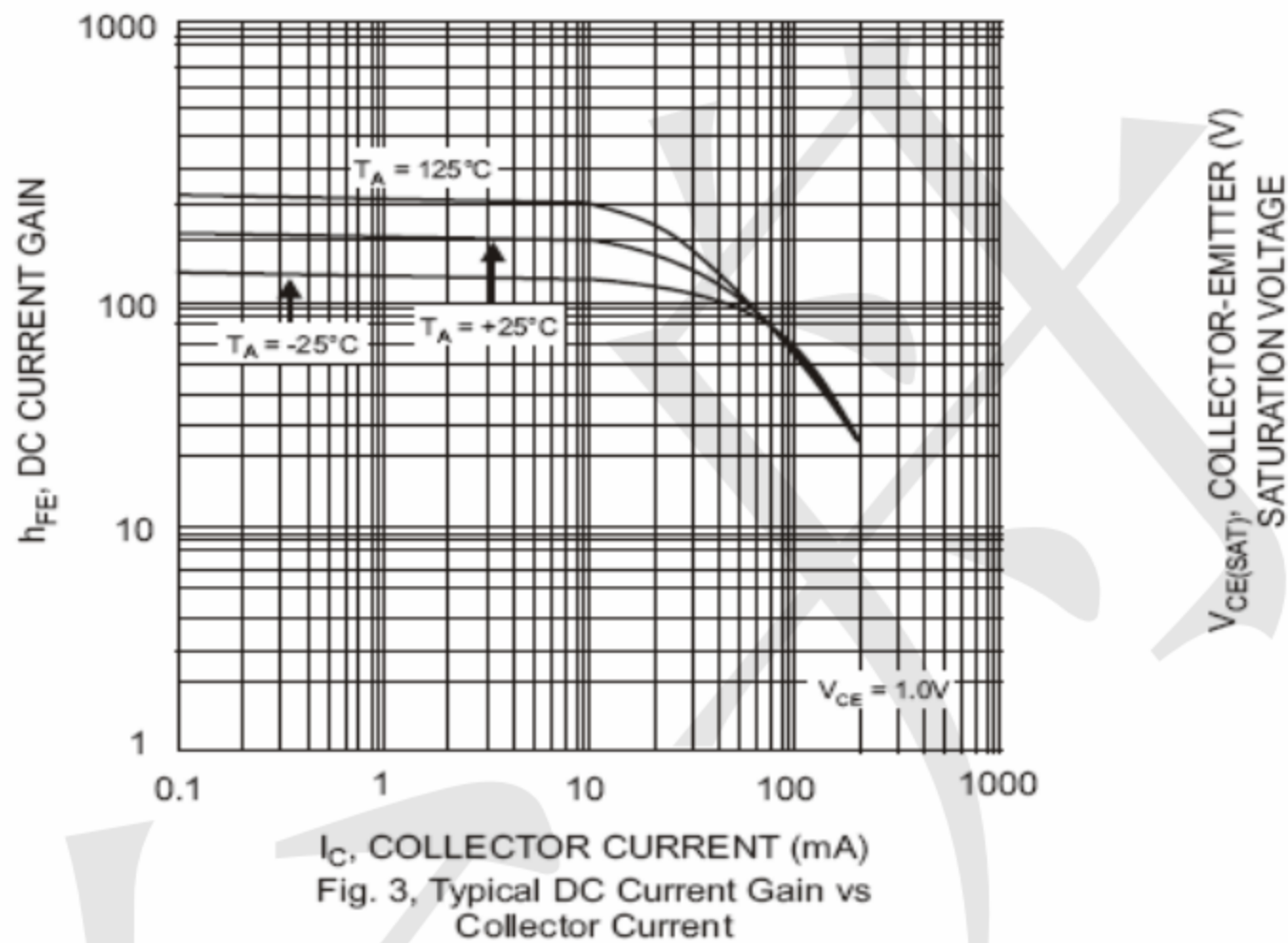
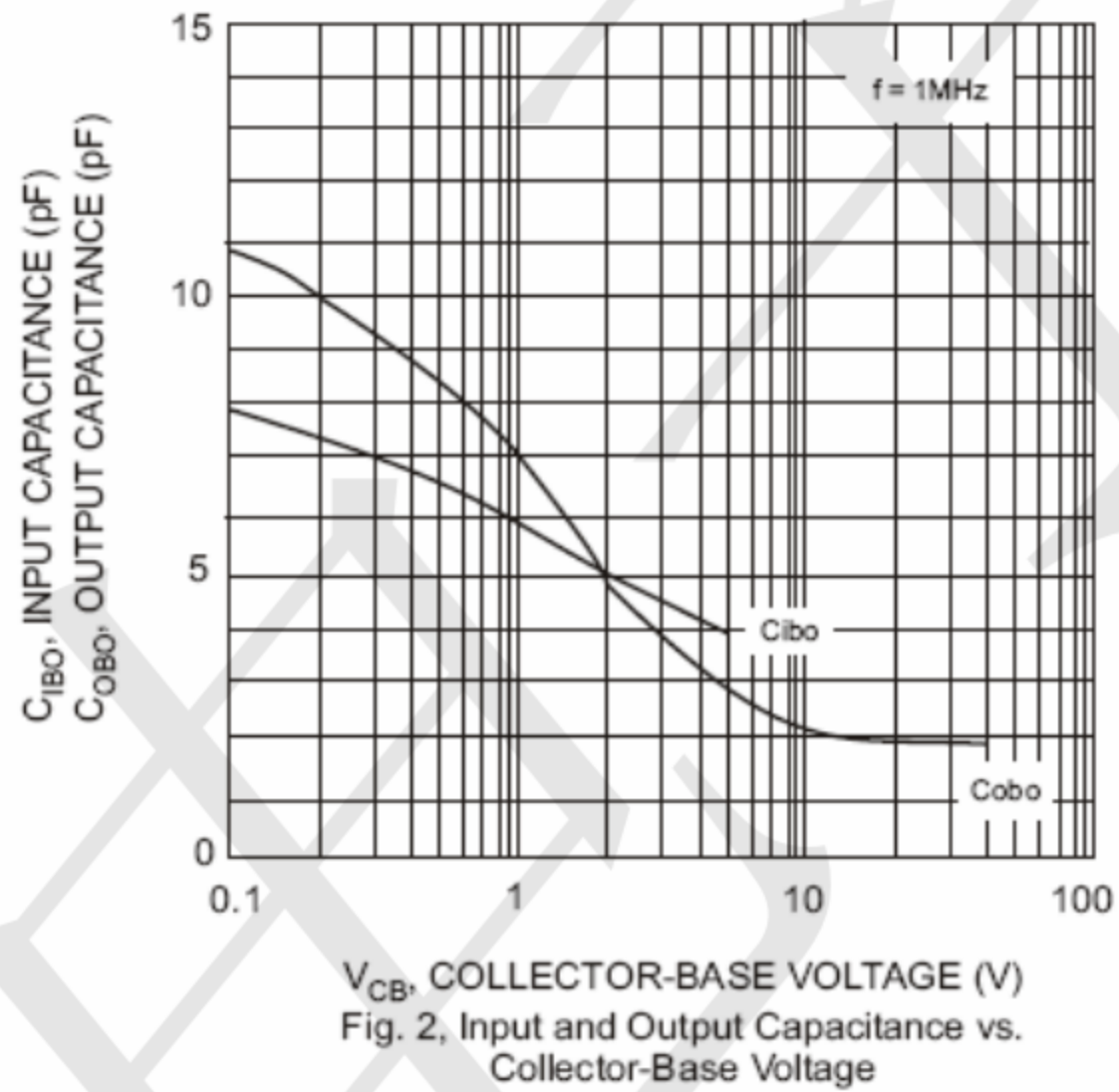
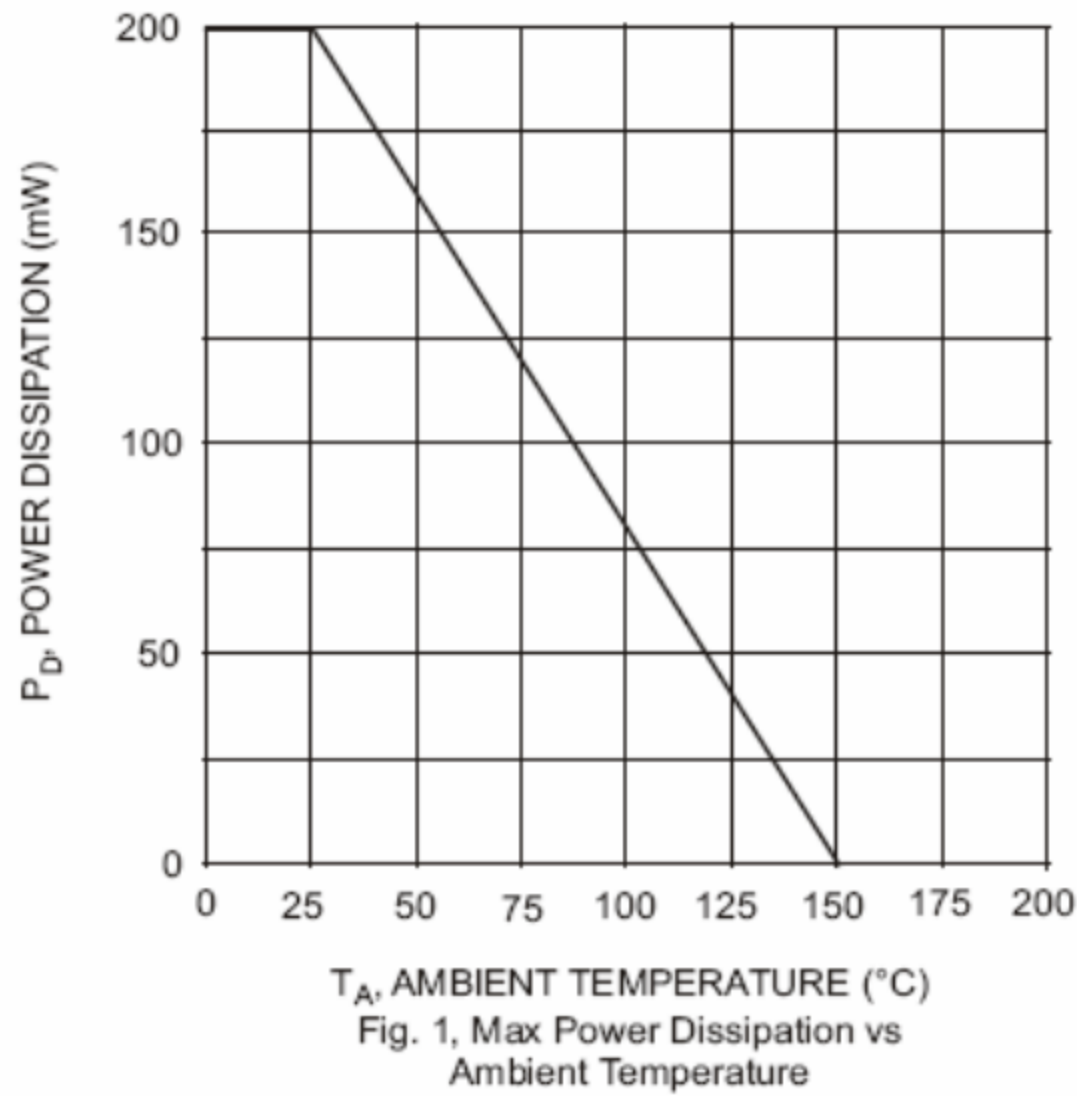


Electrical Characteristics (TA=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -10\mu A, I_E = 0$	-40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1mA, I_B = 0$	-40			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -10\mu A, I_C = 0$	-5			V
Collector cut-off current	I_{CEX}	$V_{CE} = -30V, V_{EB(OFF)} = -3V$			-50	nA
Base cut-off current	I_{EBO}	$V_{EB} = -5V, I_C = 0$			-50	nA
DC current gain	$h_{FE(1)}$	$V_{CE} = -1V, I_C = -0.1mA$	60			
	$h_{FE(2)}$	$V_{CE} = -1V, I_C = -1mA$	80			
	$h_{FE(3)}$	$V_{CE} = -1V, I_C = -10mA$	100		300	
	$h_{FE(4)}$	$V_{CE} = -1V, I_C = -50mA$	60			
	$h_{FE(5)}$	$V_{CE} = -1V, I_C = -100mA$	30			
Collector-emitter saturation voltage	$V_{CE(sat)1}$	$I_C = -10mA, I_B = -1mA$			-0.25	V
	$V_{CE(sat)2}$	$I_C = -50mA, I_B = -5mA$			-0.4	V
Base-emitter saturation voltage	$V_{BE(sat)1}$	$I_C = -10mA, I_B = -1mA$	-0.65		-0.85	V
	$V_{BE(sat)2}$	$I_C = -50mA, I_B = -5mA$			-0.95	V
Transition frequency	f_T	$V_{CE} = -20V, I_C = -10mA, f = 100MHz$	250			MHz
Collector output capacitance	C_{ob}	$V_{CB} = -5V, I_E = 0, f = 1MHz$			4.5	pF
Noise figure	NF	$V_{CE} = -5V, I_C = -0.1mA, f = 1KHz, R_g = 1K\Omega$			4	dB
Delay time	t_d	$V_{CC} = -3V, V_{BE} = 0.5V$			35	nS
Rise time	t_r	$I_C = -10mA, I_{B1} = -I_{B2} = -1mA$			35	nS
Storage time	t_s	$V_{CC} = -3V, I_C = -10mA$			225	nS
Fall time	t_f	$I_{B1} = -I_{B2} = -1mA$			75	nS

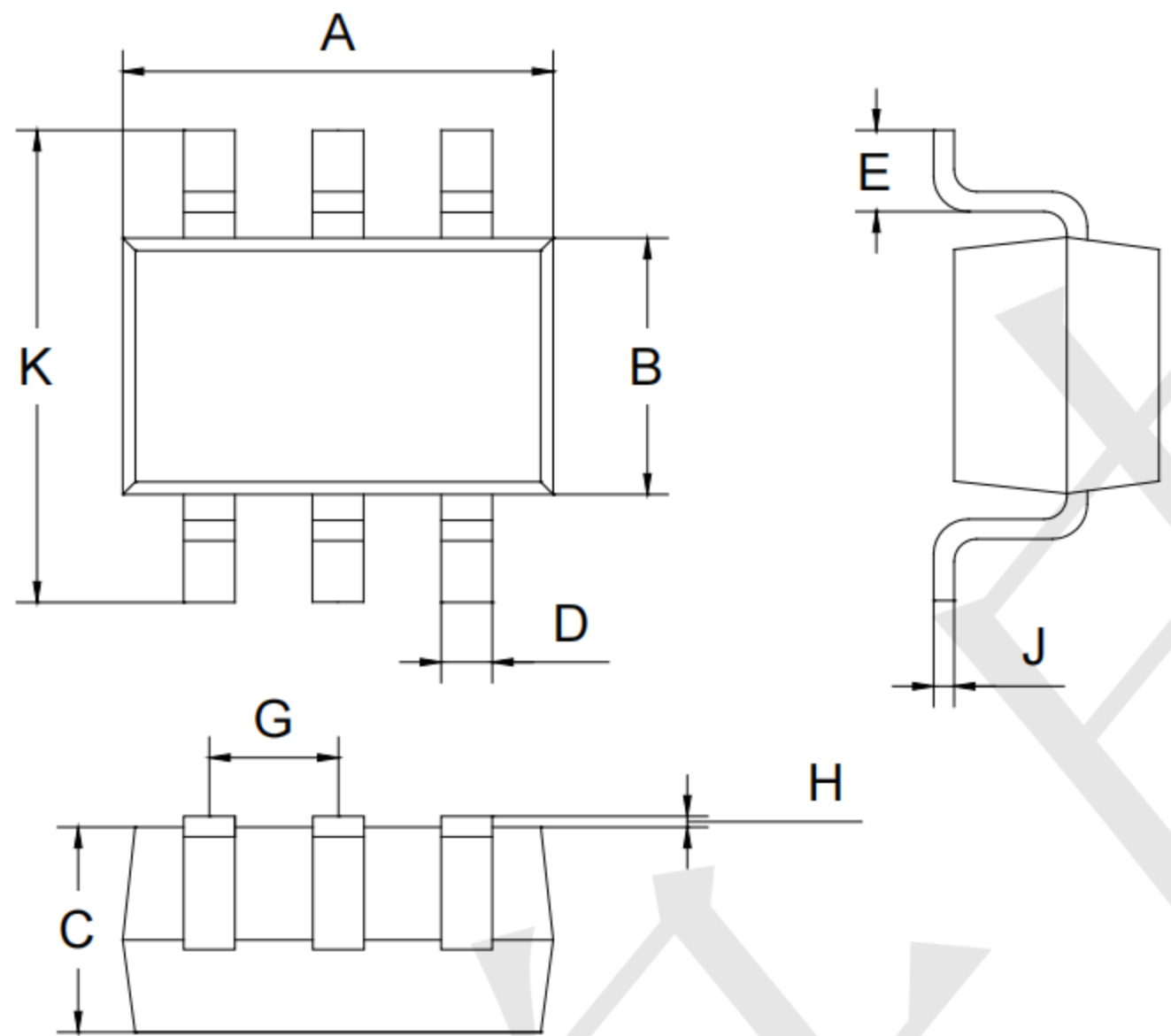


Typical Performance Characteristics ($T_A=25^\circ\text{C}$ unless otherwise Specified)





Outline Drawing - SOT363 (unit: mm)



SOT-363		
Dim	Min	Max
A	2.00	2.20
B	1.15	1.35
C	0.85	1.05
D	0.15	0.35
E	0.25	0.40
G	0.60	0.70
H	0.02	0.10
J	0.05	0.15
K	2.20	2.40

Mounting Pad Layout-SOT363 (unit: mm)

