



2SD2136

NPN SILICON TRANSISTOR

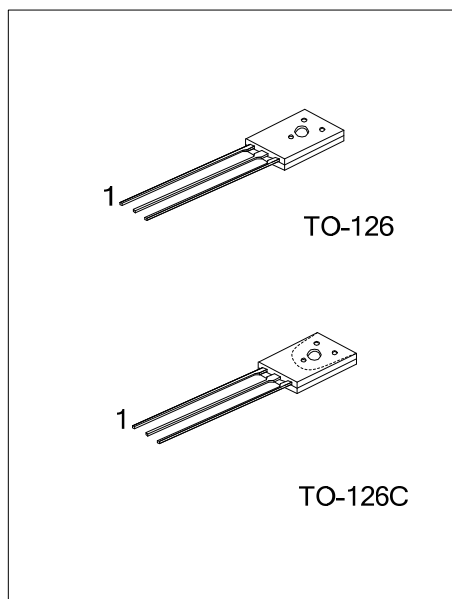
POWER TRANSISTOR

DESCRIPTION

The UTC **2SD2136** is designed for power amplification.

FEATURES

- * High forward current transfer ratio h_{FE} which has satisfactory linearity.
- * Low collector to emitter saturation voltage $V_{CE(SAT)}$.
- * Allowing supply with the radial taping.



ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
2SD2136L-x-T60-K	2SD2136G-x-T60-K	TO-126	B	C	E	Bulk
2SD2136L-x-T6C-K	2SD2136G-x-T6C-K	TO-126C	B	C	E	Bulk

2SD2136L-x-T60-K	(1)Packing Type (2)Package Type (3)Rank (4)Lead Free	(1) K: Bulk (2) T60: TO-126, T6C: TO-126C (3) x: Refer to Classification of h_{FE1} (4)G: Halogen Free, L: Lead Free
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■ **ABSOLUTE MAXIMUM RATINGS** (Ta=25°C, unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CEO}	60	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current	I_C	3	A
Peak Collector Current	I_{CP}	5	A
Collector Dissipation	P_C	1.5	W
Junction Temperature	T_J	150	°C
Storage Temperature	T_{STG}	-55 ~ +150	°C

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.

Absolute maximum ratings are stress ratings only and functional device operation is not implied.

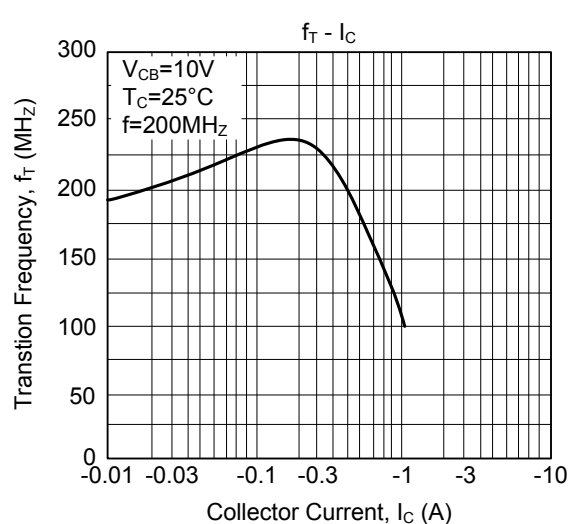
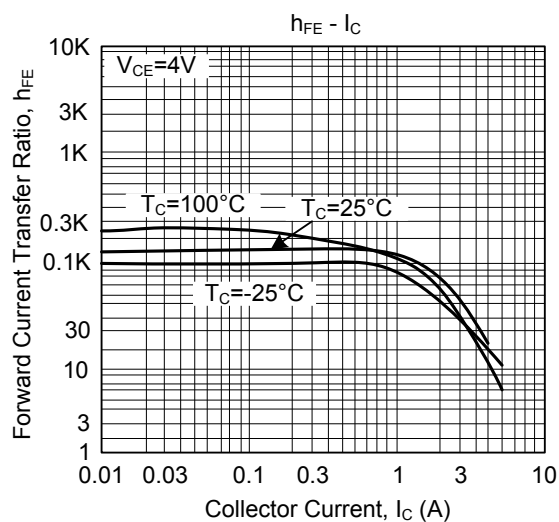
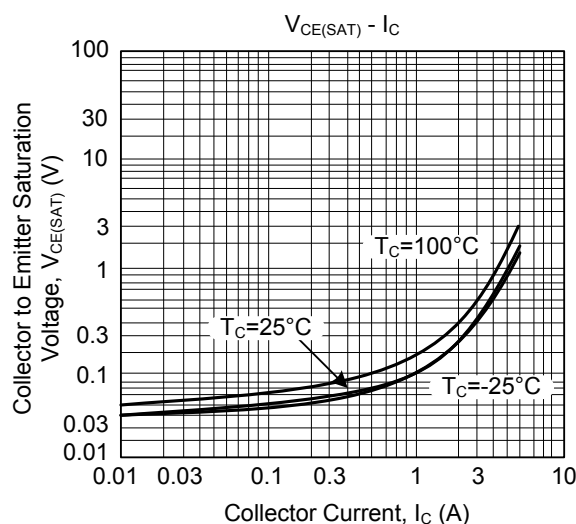
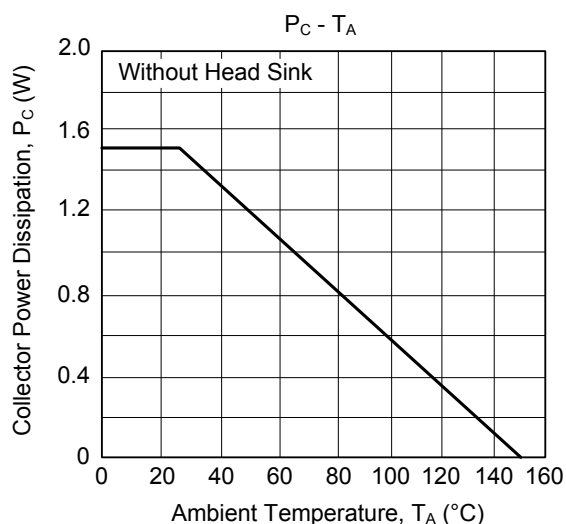
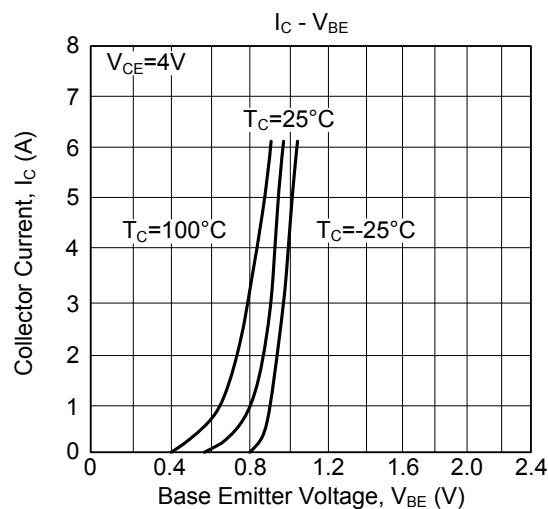
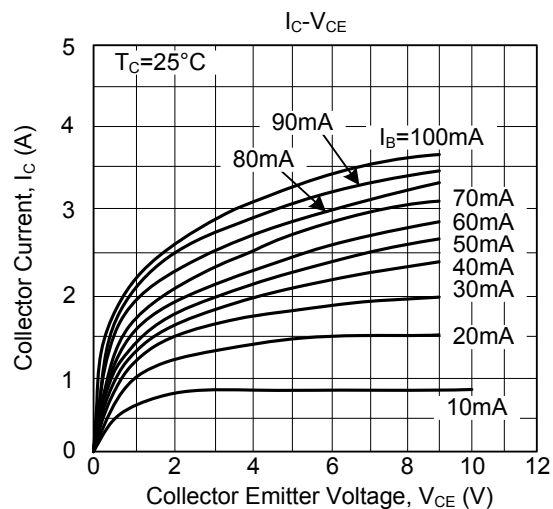
■ **ELECTRICAL CHARACTERISTICS** (Ta=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV_{CEO}	$I_C=30mA, I_B=0$	60			V
Collect Cutoff Current	I_{CEO}	$V_{CE}=60V, I_B=0$			300	μA
Collect Cutoff Current	I_{CES}	$V_{CE}=60V, V_{BE}=0$			200	μA
Emitter Cutoff Current	I_{EBO}	$V_{BE}=6V, I_C=0$			1	mA
DC Current Gain	h_{FE1}	$V_{CE}=4V, I_C=1A$	40		250	
	h_{FE2}	$V_{CE}=4V, I_C=3A$	10			
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C=3A, I_B=0.375A$			1.2	V
Base-Emitter Voltage	V_{BE}	$V_{CE}=4V, I_C=3A$			1.8	V
Current Gain Bandwidth Product	f_T	$V_{CE}=15V, I_E=0.1A, f=200MHz$		220		MHz
Turn On Time	t_{ON}	$I_C=1A, I_{B1}=0.1A, I_{B2}=0.1A$		0.5		μS
Storage Time	t_S			2.5		μS
Fall Time	t_F			0.4		μS

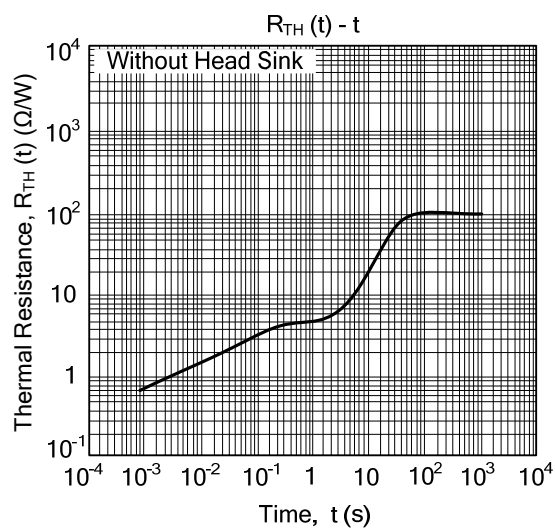
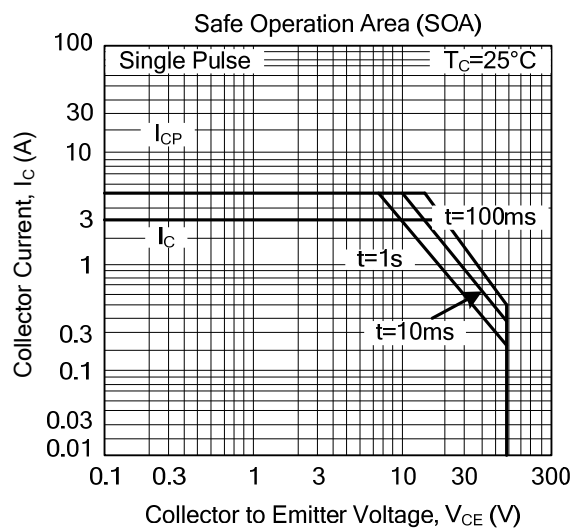
■ **CLASSIFICATION OF h_{FE1}**

RANK	P	Q	R
RANGE	40-90	70-150	120-250

■ TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS(Cont.)



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