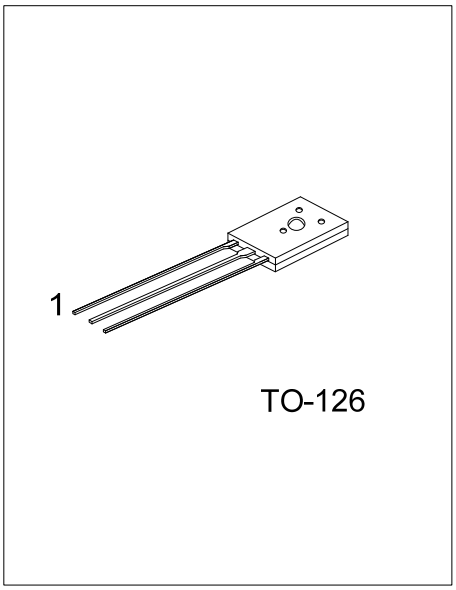
2SD2136

NPN SILICON TRANSISTOR

POWER TRANSISTOR



Lead-free: 2SD2136L
Halogen-free:2SD2136G

■ 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
Normal	Lead Free Plating	Halogen Free		1	2	3	
2SD2136-x-T60-K	2SD2136L-x-T60-K	2SD2136G-x-T60-K	TO-126	B	C	E	Bulk

2SD2136L-x-T60-K

(1)Packing Type	(1) K: Bulk
(2)Package Type	(2) T60: TO-126
(3)Rank	(3) x: Refer to Classification of h_{FE1}
(4)Lead Plating	(4)G: Halogen Free, L: Lead Free, Blank: Pb/Sn

■ 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.

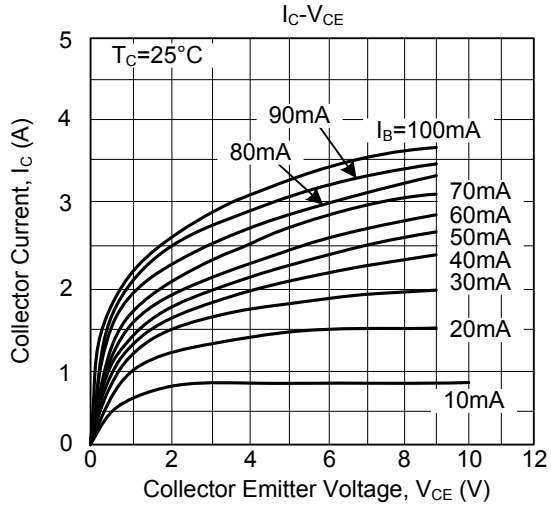
■ ELECTRICAL CHARACTERISTICS (Ta=25°C, unless otherwise specified)

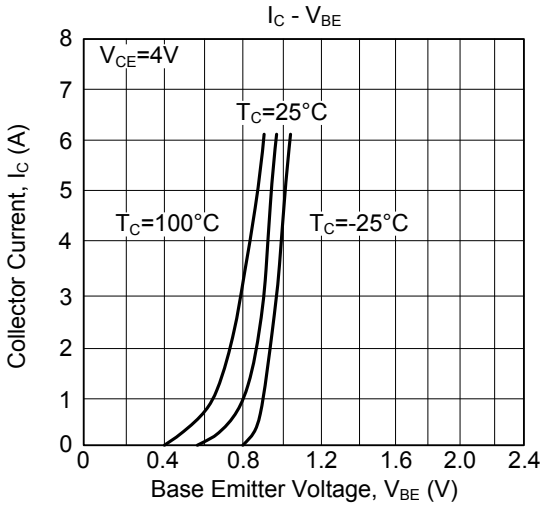
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV_{CEO}	I_C=30mA, I_B=0	60			V
Collect Cutoff Current	I_{CEO}	V_{CE}=60V, I_B=0			300	μA
Collect Cutoff Current	I_{CES}	V_{CE}=60 V, V_{BE}=0			200	μA
Emitter Cutoff Current	I_{EBO}	V_{BE}=6 V, I_C=0			1	mA
DC Current 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		MH_Z
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

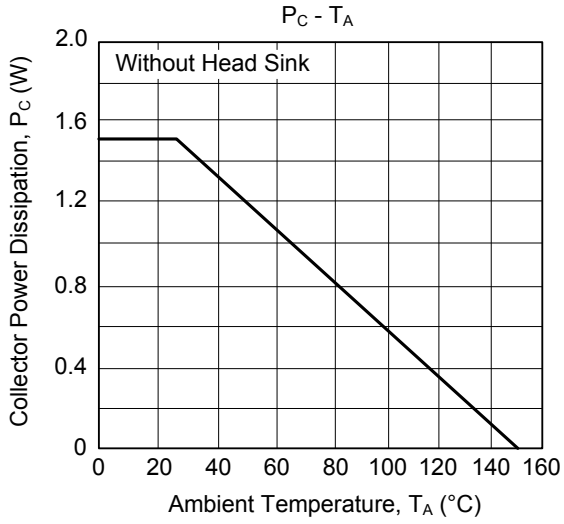
■ CLASSIFICATION OF h_{FE1}

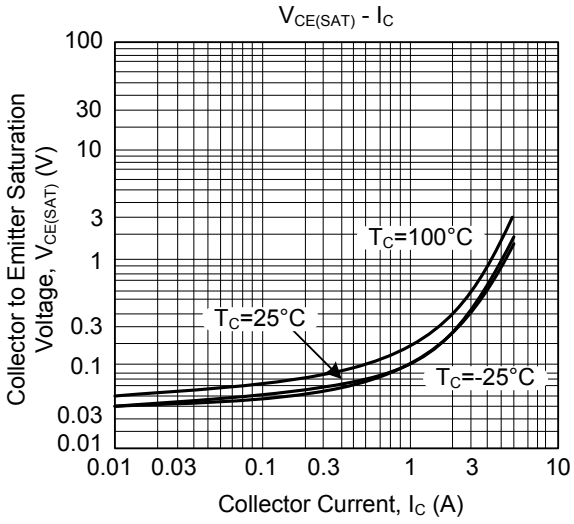
RANK	P	Q	R
RANGE	40-90	70-150	120-250

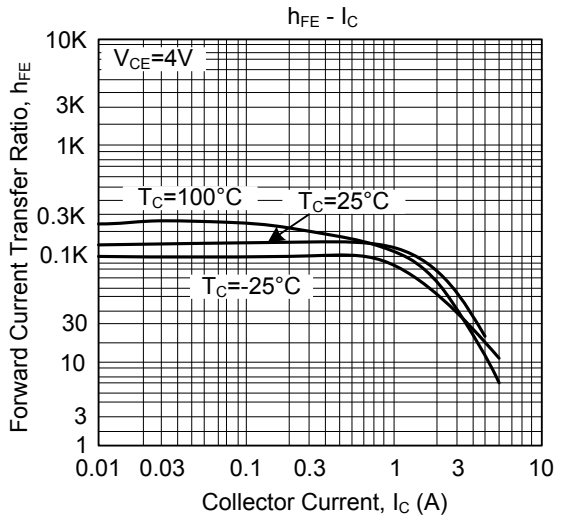
■ TYPICAL CHARACTERISTICS

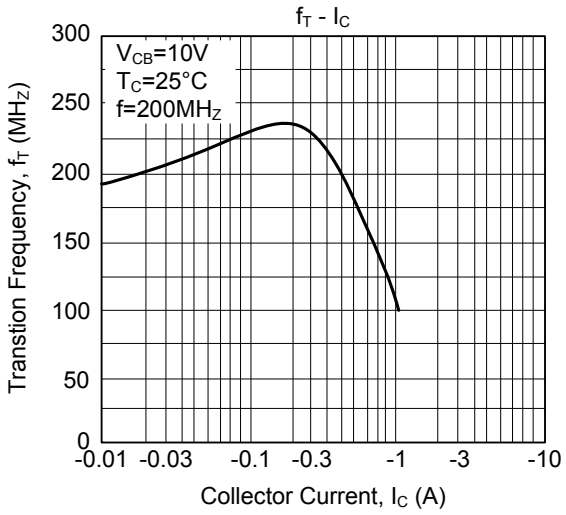












■ TYPICAL CHARACTERISTICS(Cont.)