TDSEMIC
拓電半導體

自主封測 品質把控 售後保障

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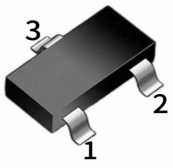
S9013 J3-TD (0.35)

產品規格說明書

FEATURES:

※ Complementary to S9012
※ Collector Current: Ic=0.5A
※ Excellent hFE Linearity.

SOT-23
1.BASE
2.EMITTER
3.COLLECTOR



MARKING:J3

MAXIMUM RATINGS (Ta=25℃ unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	VCBO	40	V
Collector-Emitter Voltage	VCEO	25	V
Emitter-Base Voltage	VEBO	5	V
Collector Current	IC	500	mA
Collector Power Dissipation	PC	300	mW
Thermal Resistance From Junction To Ambient	RΘJA	416	℃/W
Junction Temperature	Tj	150	℃
Storage Temperature	Tstg	-55～+150	℃

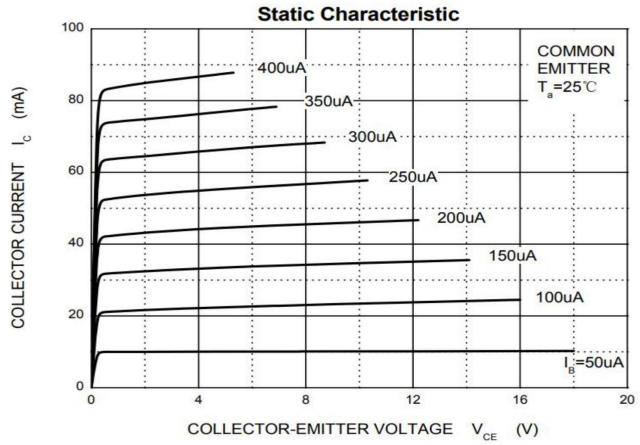
ELECTRICAL CHARACTERISTICS (Ta=25℃ unless otherwise specified)

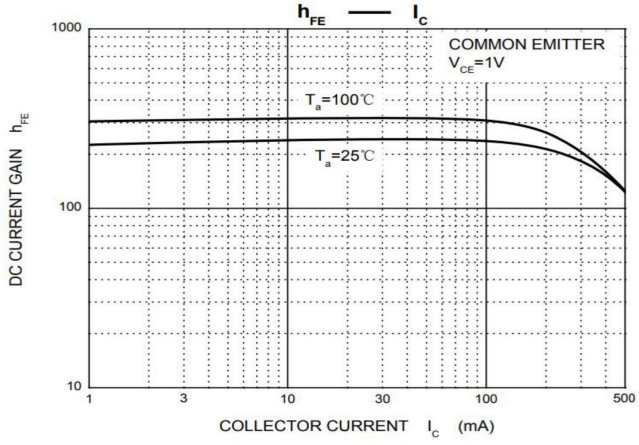
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Collector-base breakdown voltage	V(BR)CBO	IC= 100μA, IE=0	40			V
Collector-emitter breakdown voltage	V(BR)CEO	IC= 1mA, IB=0	25			V
Emitter-base breakdown voltage	V(BR)EBO	IE=100μA, IC=0	5			V
Collector cut-off current	ICBO	VCB=40 V , IE=0			0.1	μA
Emitter cut-off current	IEBO	VEB= 5V , IC=0			0.1	μA
DC current gain	hFE	VCE=1V, IC= 50mA	120		400	
	hFE	VCE=1V, IC= 500mA	40			
Collector-emitter saturation voltage	VCE(sat)	IC=500 mA, IB= 50mA			0.6	V
Base-emitter saturation voltage	VBE(sat)	IC=500 mA, IB= 50mA			1.2	V
Base-emitter voltage	VBE	VCB=1V,IC=10mA,			0.7	V
Transition frequency	fT	VCE=6V, IC=20mA f=30MHz	150			MHz
Collector Output Capacitance	Cob	VCB=6V, IE=0, f=1MHz			8	pF

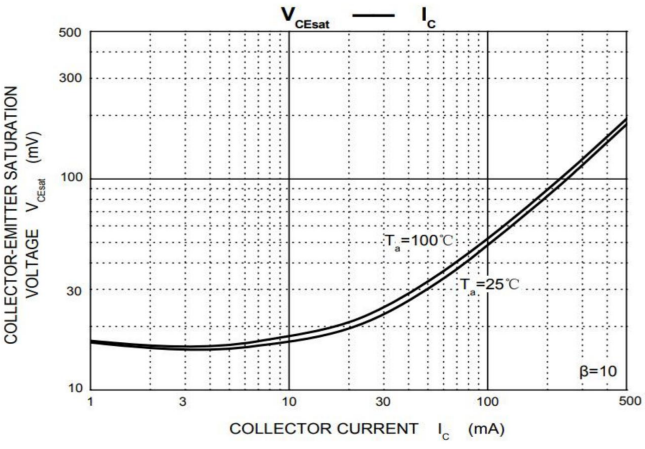
CLASSIFICATION OF hFE

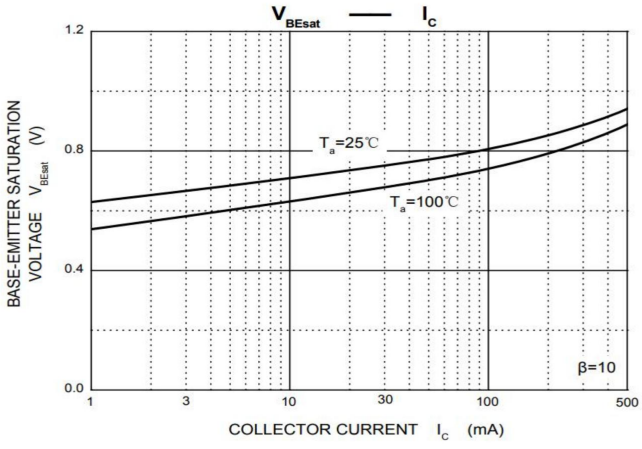
Rank	L	H	J
Range	120-200	200-350	300-400

Typical Electrical and Thermal Characteristics









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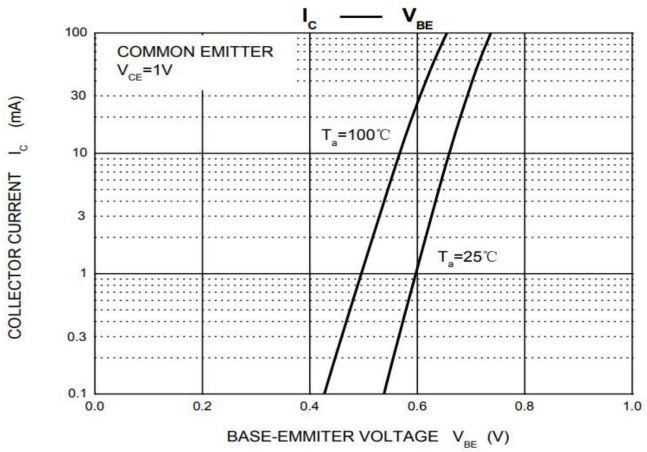
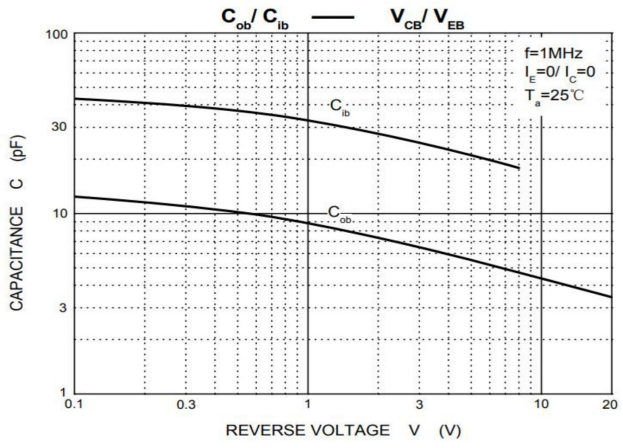
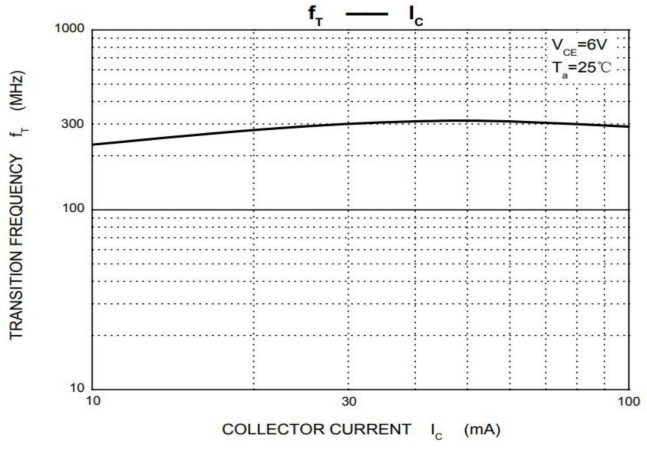
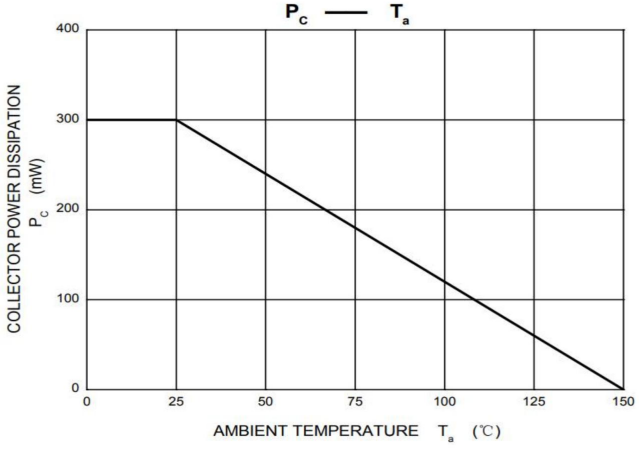
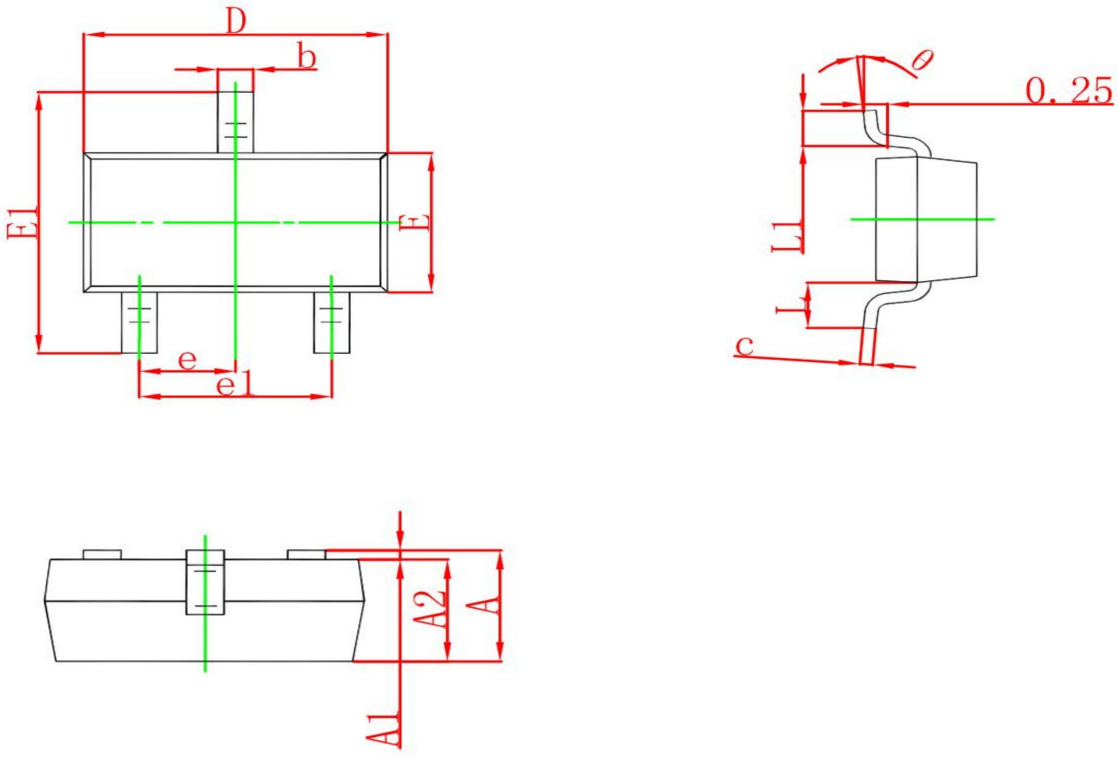








SOT-23 Package Outline Dimesions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°