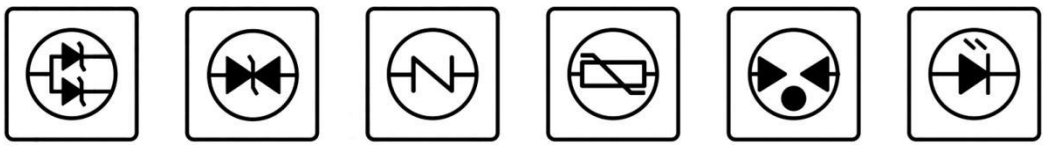
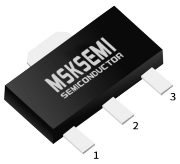
MSKSEMI
SEMICONDUCTOR



Product data sheet



1. BASE
2. COLLETOR
3. EMITTER

TRANSISTOR (NPN)

FEATURES

Power dissipation

MAXIMUM RATINGS (T_A=25℃ unless otherwise noted)

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	40	V
V_{CEO}	Collector-Emitter Voltage	30	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current -Continuous	3	A
P_C	Collector Power Dissipation	0.5	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55-150	℃

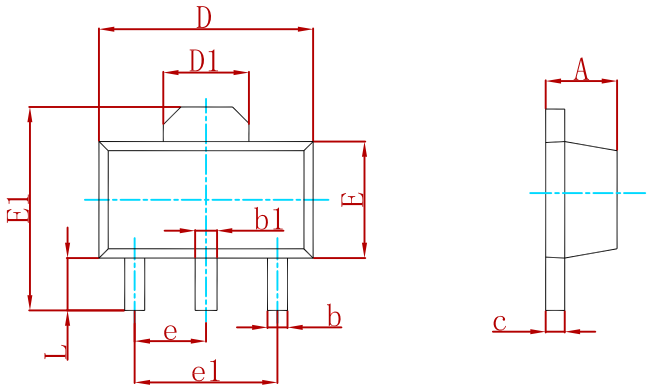
ELECTRICAL CHARACTERISTICS(Tamb=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C = 100μA, I_E=0	40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C = 10mA, I_B=0	30			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E= 100μA, I_C=0	6			V
Collector cut-off current	I_{CBO}	V_{CB}= 40V, I_E=0			1	μA
Collector cut-off current	I_{CEO}	V_{CE}= 30V, I_B=0			10	μA
Emitter cut-off current	I_{EBO}	V_{EB}= 6V, I_C=0			1	μA
DC current gain	$h_{FE(1)}$	V_{CE}=2V, I_C= 1A	60		400	
	$h_{FE(2)}$	V_{CE}=2V, I_C= 100mA	32			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C= 2A, I_B= 0.2 A			0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C= 2A, I_B= 0.2 A			1.5	V
Transition frequency	f_T	V_{CE}= 5V , Ic=0.1A f =10MHz	50			MHz

CLASSIFICATION OF $h_{FE(1)}$

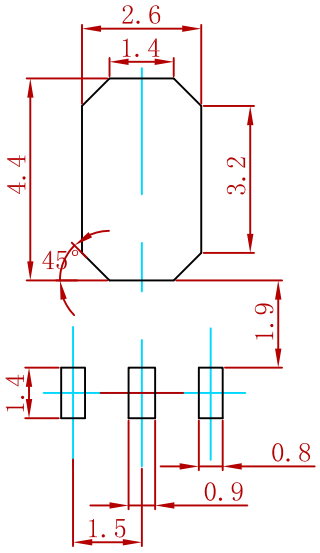
Rank	R	O	Y	GR
Range	60-120	100-200	160-320	200-400

PACKAGE MECHANICAL DATA



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.400	1.600	0.055	0.063
b	0.320	0.520	0.013	0.020
b1	0.400	0.580	0.016	0.023
c	0.350	0.440	0.014	0.017
D	4.400	4.600	0.173	0.181
D1	1.550 REF.		0.061 REF.	
E	2.300	2.600	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500 TYP.		0.060 TYP.	
e1	3.000 TYP.		0.118 TYP.	
L	0.900	1.200	0.035	0.047

Suggested Pad Layout



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:±0.05mm.
3.The pad layout is for reference purposes only.

REEL SPECIFICATION

P/N	PKG	QTY
2SD882-MS	SOT-89	1000

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