

MSKSEMI

SEMICONDUCTOR



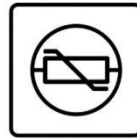
ESD



TVS



TSS



MOV

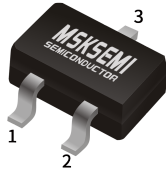


GDT



PLED

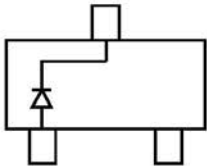
Product data sheet



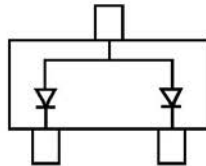
SOT-23

FEATURES

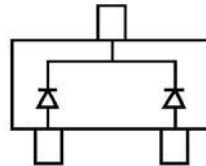
- Low Forward Voltage
- Fast Switching



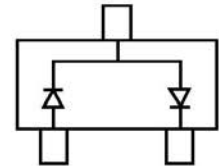
BAS40



BAS40-06

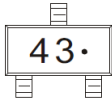
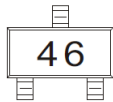
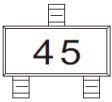



BAS40-05



BAS40-04

MARKING:

BAS40	BAS40-06	BAS40-05	BAS40-04
			

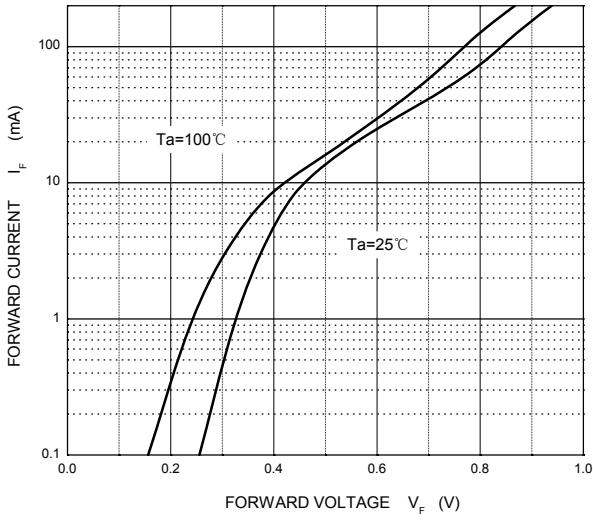
Maximum Ratings @Ta=25°C

Parameter	Symbol	Limit	Unit
Peak Repetitive Peak Reverse Voltage	V_{RRM}	40	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
Forward Continuous Current	I_{FM}	200	mA
Average Rectified Output Current	I_O	200	mA
Non-Repetitive Peak Forward Surge Current @ t = 8.3ms	I_{FSM}	0.6	A
Power Dissipation	P_D	200	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	500	°C/W
Operating Junction Temperature	T_J	125	°C
Storage Temperature	T_{STG}	-55~+150	°C

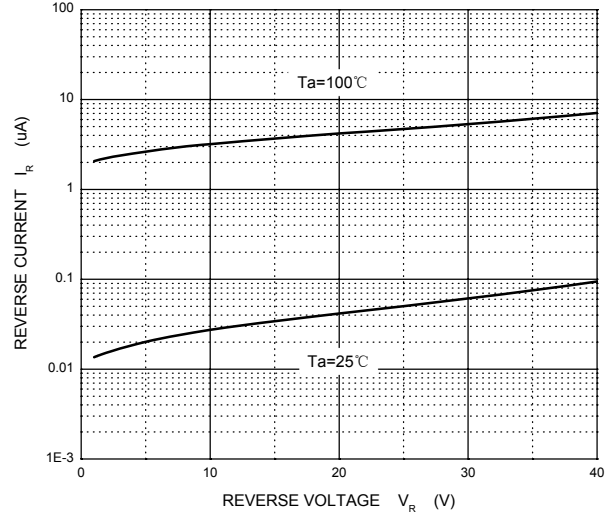
ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	$I_R=10\mu A$	40		V
Reverse voltage leakage current	I_R	$V_R=30V$		200	nA
Forward voltage	V_F	$I_F=1mA$ $I_F=40mA$		380 1000	mV
Diode capacitance	C_D	$V_R=0, f=1MHz$		5	pF
Reverse recovery time	t_{rr}	$I_{rr}=1mA, I_R=I_F=10mA$ $R_L=100\Omega$		5	ns

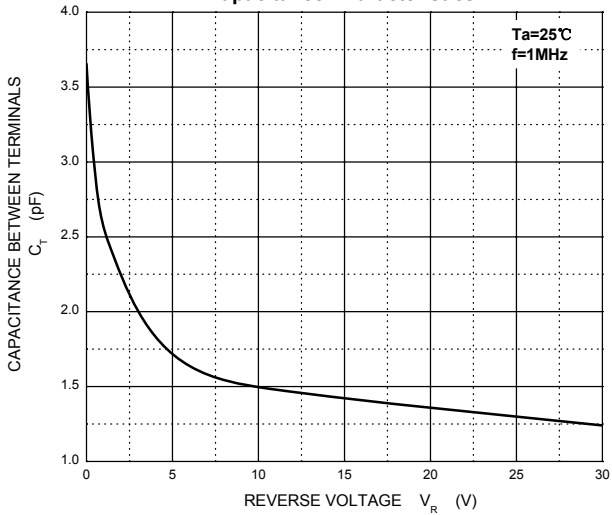
Forward Characteristics



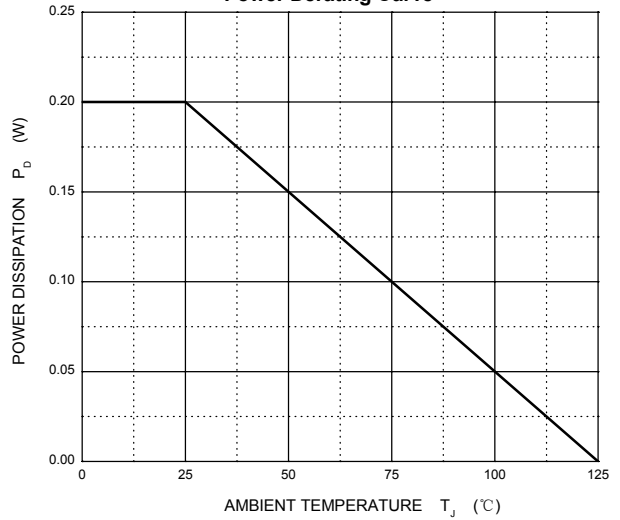
Reverse Characteristics



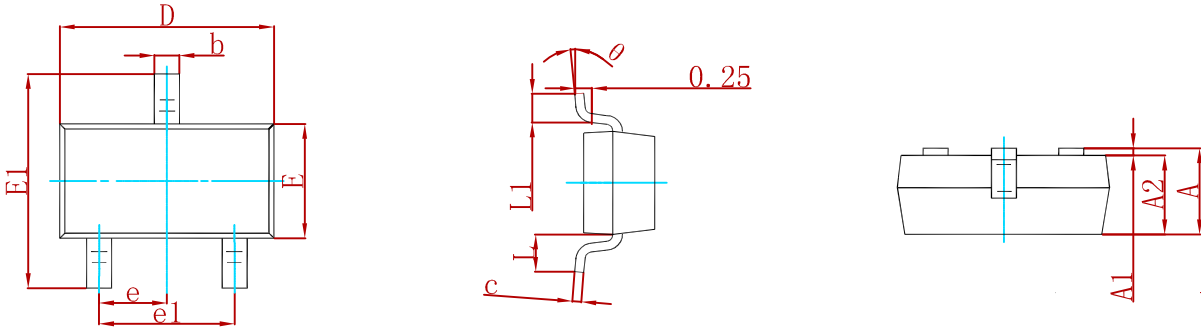
Capacitance Characteristics



Power Derating Curve

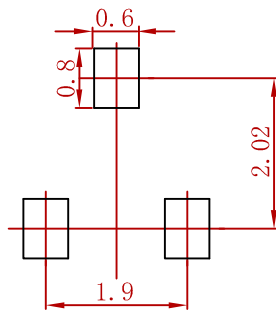


PACKAGE MECHANICAL DATA



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°

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
BAS40/-04/-05/-06	SOT-23	3000

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