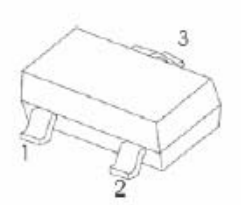
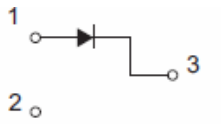
SOT-23 Plastic-Encapsulate Diodes

FEATURE

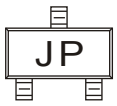
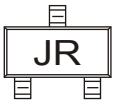
- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications
- High Conductance

SOT-23





MARKING:

TKBAS19:JP	TKBAS20:JR
	

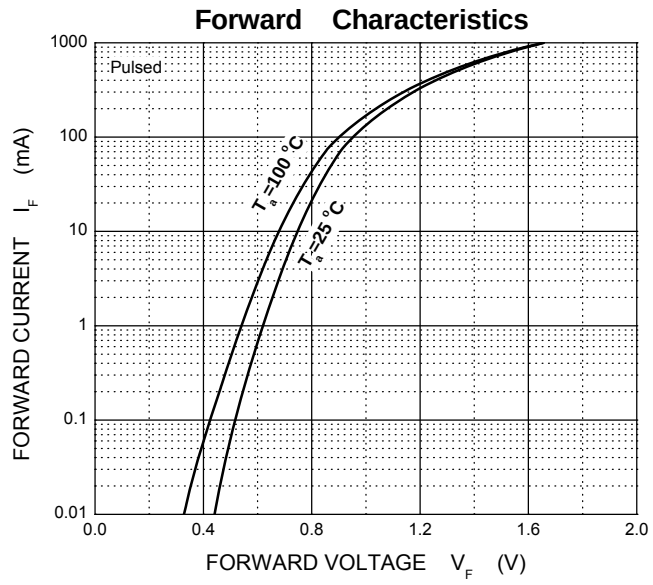
MAXIMUM RATINGS (T_A=25℃ unless otherwise noted)

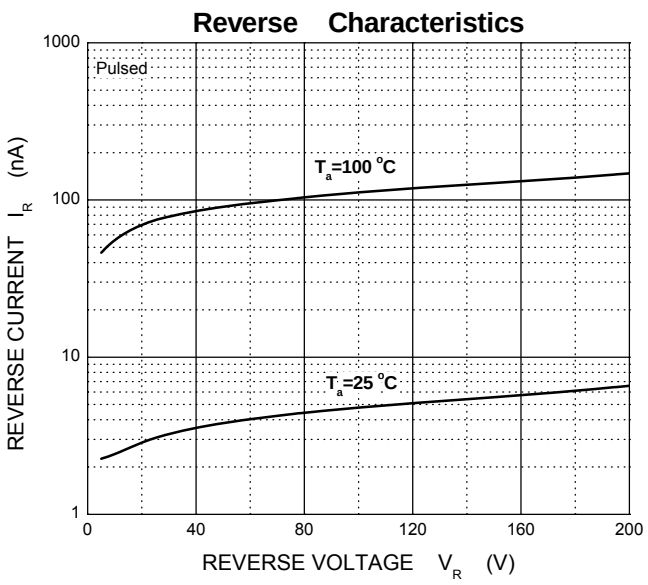
Symbol	Parameter	TKBAS19	TKBAS20	Unit
V_{RRM}	Repetitive Peak Reverse Voltage	120	200	V
V_{RWM}	Working Peak Reverse Voltage	100	150	V
I_O	Average Rectified Output Current	200		mA
I_{FSM}	Non-Repetitive Peak Forward Surge Current @t=8.3ms	2.5		A
P_d	Power Dissipation	250		mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	500		℃/W
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55 ~ +150		℃

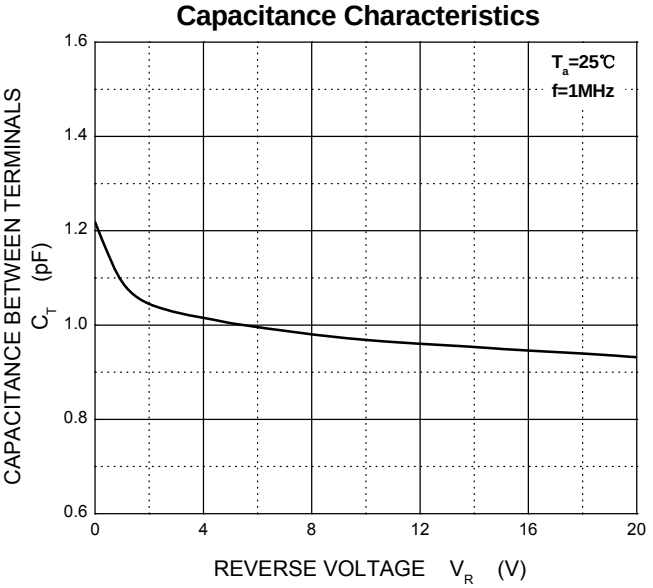
ELECTRICAL CHARACTERISTICS (T_A = 25℃ unless otherwise specified)

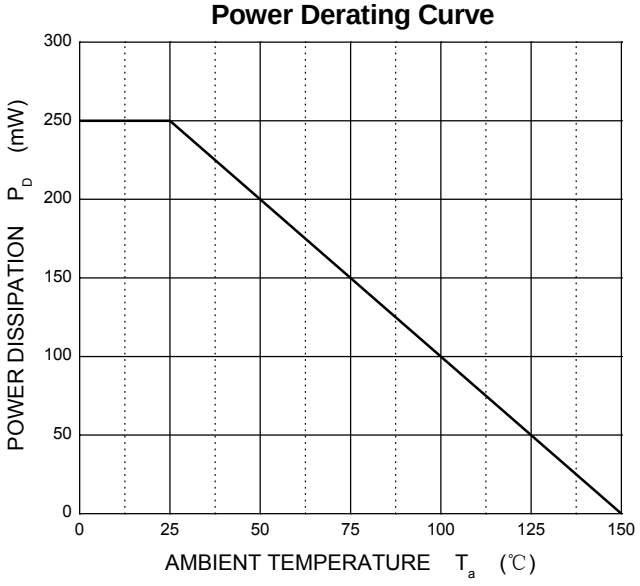
Parameter		Symbol	Test Condition	Min	Typ	Max	Unit
Reverse breakdown voltage	TKBAS19 TKBAS20	$V_{(BR)}$	I_R=100μA	120 200			V
Reverse current	TKBAS19 TKBAS20	I_R	V_R=100V V_R=150V			0.1	μA
Forward voltage		V_F	I_F=100mA			1	V
			I_F=200mA			1.25	V
Diodes capacitance		C_D	V_R=0V, f=1MHz			5	pF
Reveres recovery time		t_{rr}	I_F=I_R=30mA,I_{rr}=0.1*I_R			50	ns

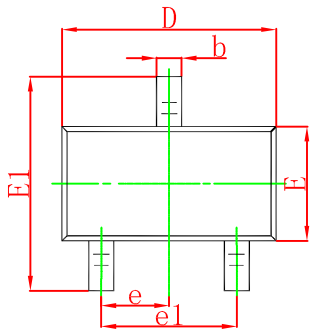
Typical Characteristics

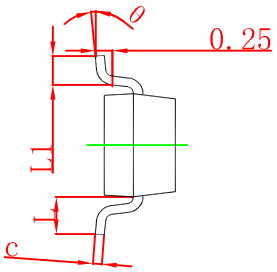


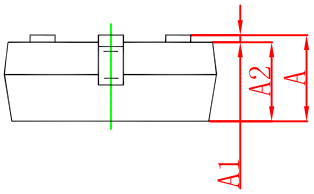






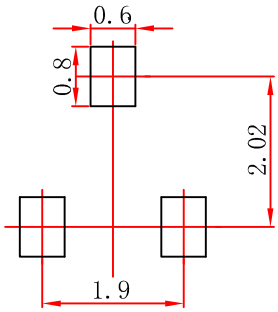






Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 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°

SOT-23 Suggested Pad Layout



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