

Features

- $V_R=30V$
- $I_F(AV)=0.2A$
- High Current Capability
- Low Forward Voltage Drop
- Extremely Fast Switching Speed

Applications

- These Schottky barrier diodes are designed for high speed switching

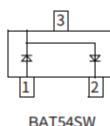
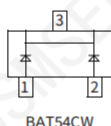
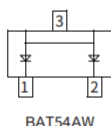
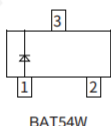
Mechanical Data

- Case: SOT-323
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Cathode line denotes the cathode end



SOT-323

Function Diagram



Maximum Ratings($T_a=25^{\circ}C$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	VALUE
Maximum repetitive peak reverse voltage	VRRM	V	30
Maximum RMS voltage	VRMS	V	21
Maximum DC blocking voltage	VDC	V	30
Maximum average forward rectified current	$I_F(AV)$	mA	200
Non-repetitive Peak Forward Surge Current @ $t=8.3ms$ Half-sine wave	IFSM	mA	600
Power Dissipation	PD	mW	200
Junction Temperature	T_j	$^{\circ}C$	125
Storage temperature range	TSTG	$^{\circ}C$	-55 ~+150
Typical thermal resistance	$R_{\theta JA}$	$^{\circ}C/W$	500

Electrical Characteristics($T_a=25^{\circ}\text{C}$ Unless otherwise noted)

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	Min	Typ	Max
Maximum forward voltage	$I_F=0.1\text{mA}$	VF	mV	—	—	240
	$I_F=1.0\text{mA}$			—	—	320
	$I_F=10\text{mA}$			—	—	400
	$I_F=30\text{mA}$			—	—	500
	$I_F=100\text{mA}$			—	—	1000
Maximum reverse current	$V_R=25\text{V}$	IR	μA	—	—	2.0
Capacitance between terminals	$V_e=1.0\text{V}, f=1\text{MHz}$	CT	pF	—	—	10.0
Reverse Recovery time	$I=I_F=10\text{mA}$ $I_{rr}=0.1F\times I_{RR}$, $R_L=100\Omega$	trr	ns	—	—	5.0

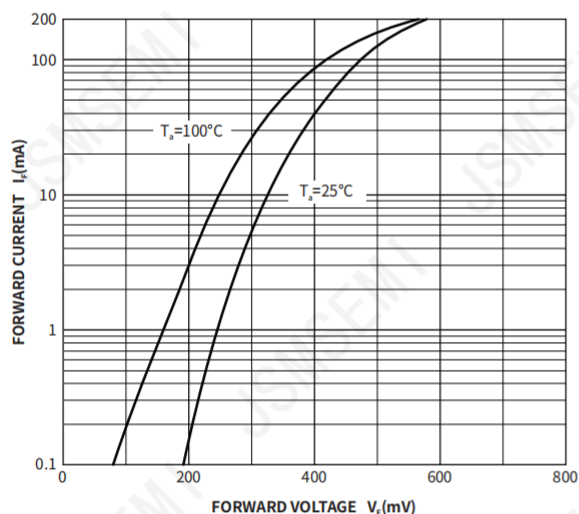
 Ratings And Characteristics Curves($T_a=25^{\circ}\text{C}$ Unless otherwise specified)


Fig.1 Typical Instantaneous Forward Characteristics

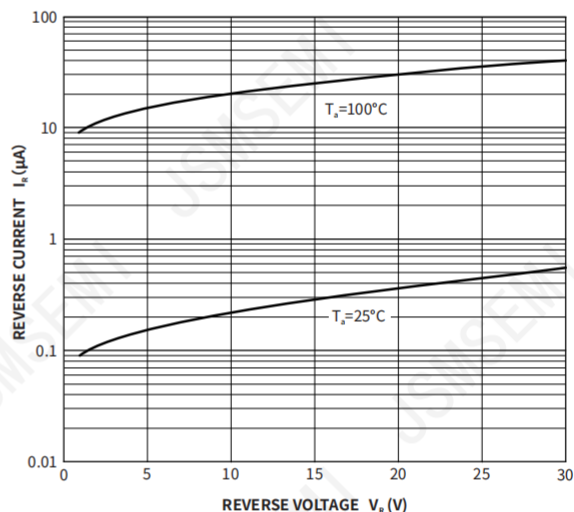


Fig.2 Typical Reverse Characteristics

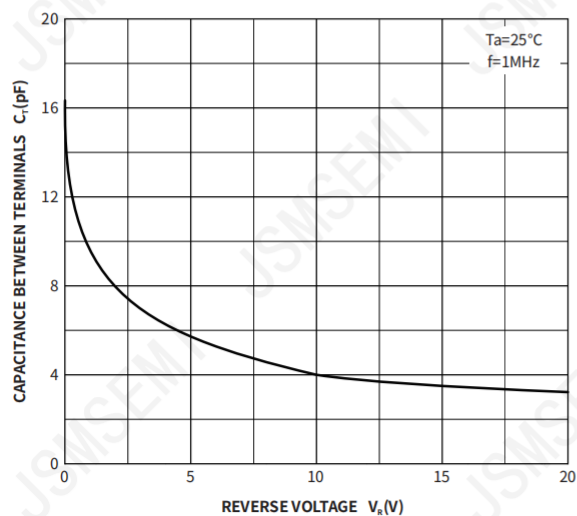


Fig.3 Typical Junction Capacitance

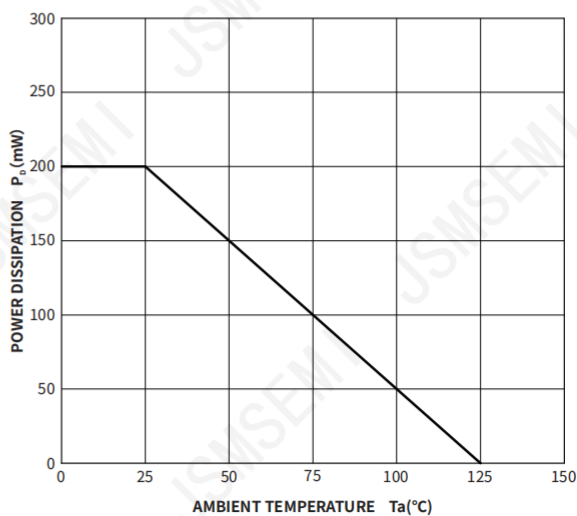
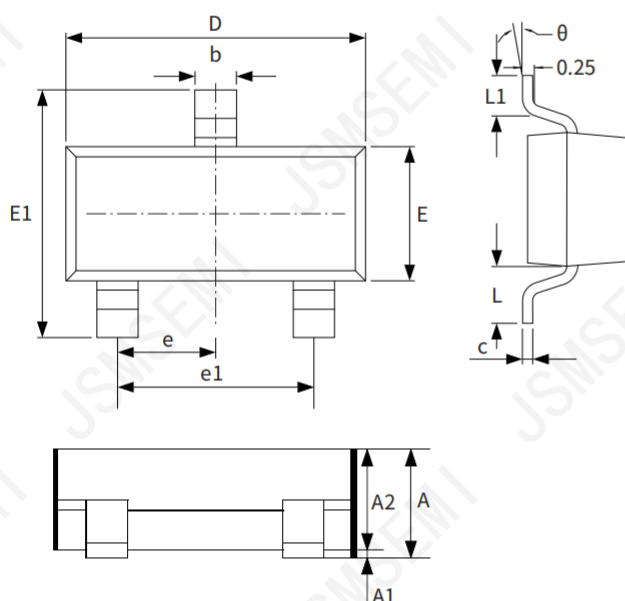


Fig.4 Power Derating Curve

Ordering Information

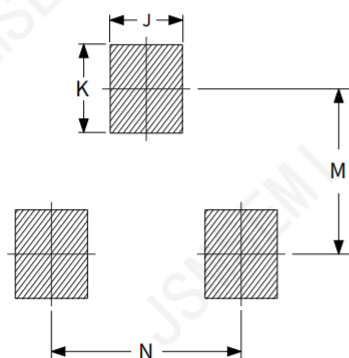
PACKAGE	UNIT WEIGHT(g)	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
SOT-323	0.005	3000	45000	180000	7"

Package Outline Dimensions (SOT-323)



Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	0.90	1.10	0.035	0.043
A1	-	0.10	-	0.004
A2	0.90	1.00	0.035	0.039
b	0.15	0.40	0.012	0.020
c	0.10	0.25	0.004	0.010
D	1.80	2.20	0.071	0.087
E	1.15	1.35	0.045	0.053
E1	2.15	2.45	0.085	0.096
e	0.650TYP		0.026TYP	
e1	1.20	1.40	0.047	0.055
L	0.525REF		0.021REF	
L1	0.26	0.46	0.010	0.018
θ	-	8°	-	8°

Suggested Pad Layout



Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
J	0.65	0.75	0.026	0.030
K	0.85	0.95	0.033	0.037
M	2.15	2.25	0.073	0.077
N	1.25	1.35	0.049	0.053