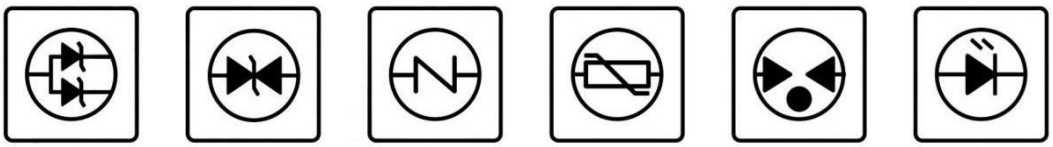
MSKSEMI 美森科
SEMICONDUCTOR



MBR0520LT3G-MS/MBR0530LT3G-MS/MBR0540LT3G-MS

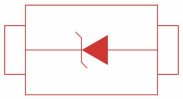
Product specification

Surface Mount Schottky Barrier Diodes

FEATURES

- Low Forward Voltage

PACKAGE OUTLINE

SOD-123	Circuit diagram
	

MARKING

MBR0520LT3G-MS	MBR0530LT3G-MS	MBR0540LT3G-MS
B2*	B3*	B4*

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

Absolute Maximum Ratings (T_a = 25℃)

Parameter		Symbol	Value	Unit
Peak Repetitive Reverse Voltage	MBR0520LT3G-MS MBR0530LT3G-MS MBR0540LT3G-MS	V_{RRM}	20 30 40	V
Reverse Voltage	MBR0520LT3G-MS MBR0530LT3G-MS MBR0540LT3G-MS	V_R	20 30 40	V
Average Forward Rectified Current		$I_{F(AV)}$	350	mA
Non-Repetitive Peak Forward Surge Current at t = 1 s		I_{FSM}	2	A
Power Dissipation		P_{tot}	400	mW
Operating and Storage Temperature Range		T_j, T_{stg}	- 65 to + 125	℃

Characteristics at T_a = 25℃

Parameter		Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage at I_R = 10 uA	MBR0520LT3G-MS MBR0530LT3G-MS MBR0540LT3G-MS	$V_{(BR)R}$	20 30 40	- - -	- - -	V
Reverse Leakage Current at VR = 10 V at VR = 20 V at VR = 30 V	MBR0520LT3G-MS MBR0530LT3G-MS MBR0540LT3G-MS	I_R	- - -	- - -	5 5 5	μA
Forward Voltage at I_F = 20 mA at I_F = 200 mA		V_F	- -	- -	0.37 0.6	V
Total Capacitance at V_R = 0 V, f = 1 MHz		C_T	-	50	-	pF
Reverse Recovery Time at I_F = I_R = 200 mA, I_{rr} = 0.1 I_R, R_L = 100 Ω		t_{rr}	-	10	-	ns

Typical Characteristics

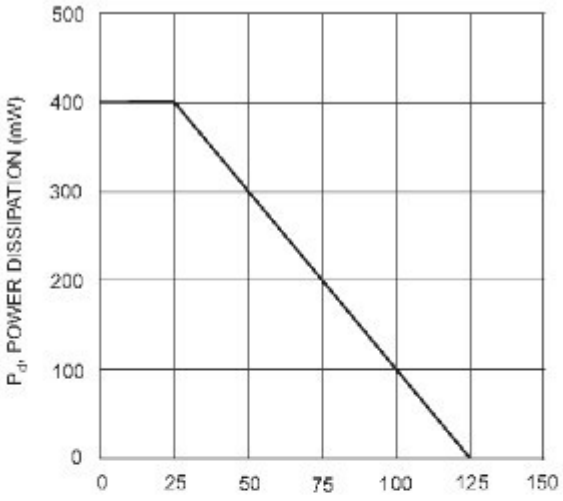


Fig.1 Power Derating Curve

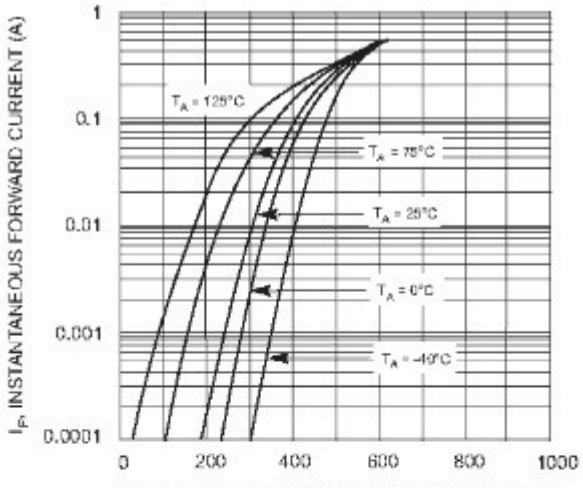


Fig. 2 Typical Forward Characteristics

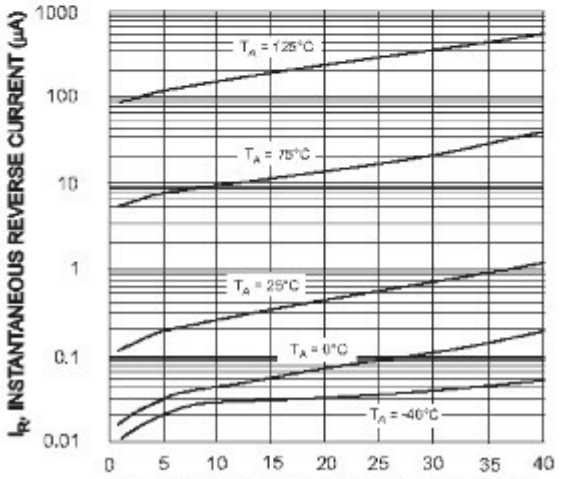


Fig. 3 Typical Reverse Characteristics

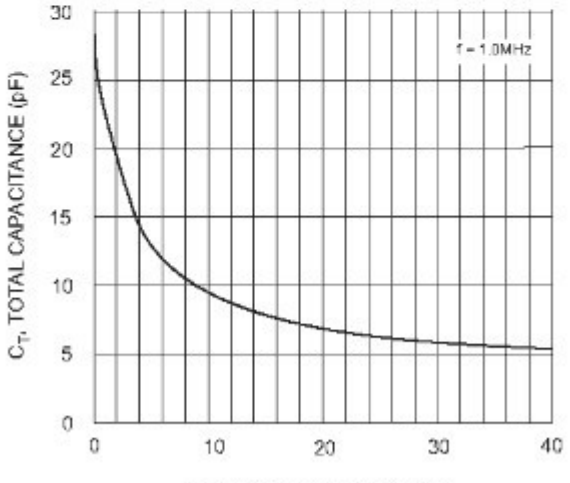
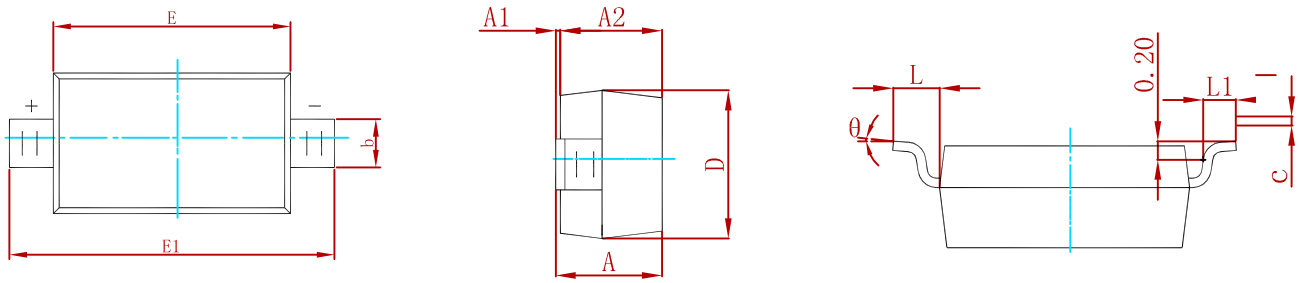


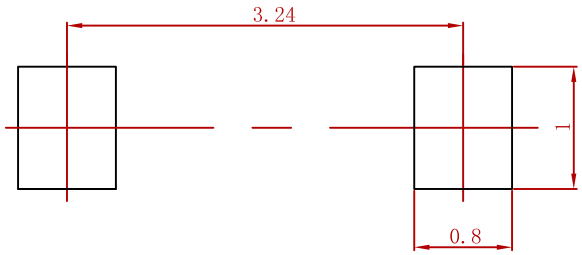
Fig. 4 Typ. Total Capacitance vs. Reverse Voltage

PACKAGE MECHANICAL DATA



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.450	0.650	0.018	0.026
c	0.080	0.150	0.003	0.006
D	1.500	1.700	0.059	0.067
E	2.600	2.800	0.102	0.110
E1	3.550	3.850	0.140	0.152
L	0.500 REF		0.020 REF	
L1	0.250	0.450	0.010	0.018
θ	0°	8°	0°	8°

Suggested Pad Layout



Note:
1.Controllng dlmenslon:in mlllmeters.
2.General tolerance:± 0.05mm.
3.The pad layout Is for reference purposes only.

REEL SPECIFICATION

P/N	PKG	QTY
MBR0520LT3G-MS/MBR0530LT3G-MS/MBR0540LT3G-MS	SOD-123	3000PCS

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