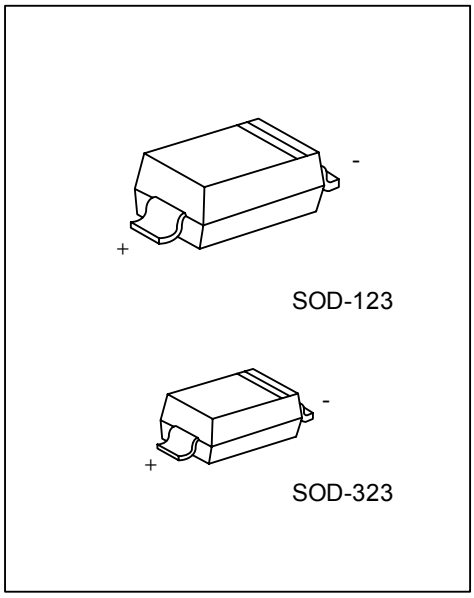
MBR0530

DIODE

SCHOTTKY RECTIFIER



*Pb-free plating product number: MBR0530L

■ FEATURES

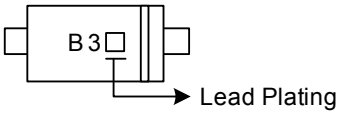
* For surface mounted applications
* Low forward voltage drop (V_F=0.37V Typ. at 0.1A)
* Guard ring for transient and ESD protection

■ ORDERING INFORMATION

Order Number		Package	Packing
Normal	Lead Free Plating		
MBR0530-CA2-R	MBR0530L-CA2-R	SOD-123	Tape Reel
MBR0530-CB2-R	MBR0530L-CB2-R	SOD-323	Tape Reel

MBR0530L-CA2-R (1)Packing Type (2)Package Type (3)Lead Plating	(1) R: Tape Reel (2) CA2: SOD-123, CB2: SOD-323 (3) L: Lead Free Plating Blank: Pb/Sn

■ MARKING



■ ABSOLUTE MAXIMUM RATINGS (Ta=25℃)

PARAMETER	SYMBOL	RATINGS	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	30	V
Maximum DC Blocking Voltage	V_R	30	V
Working Peak Reverse Voltage	V_{RWM}	30	V
Maximum RMS Reverse Voltage	$V_{R(RMS)}$	21	V
Maximum Voltage Rate of Change (Rated V_R)	dv/dt	1000	V/μs
Average Rectified Forward Current	I_{OUT}	500	mA
Non-Repetitive Peak Forward Surge Current	I_{FSM}	5.5	A
Power Dissipation	P_D	410	mW
Storage Temperature	T_{STG}	-65 ~ +150	℃

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ THERMAL DATA

PARAMETER	SYMBOL	RATINGS	UNIT
Thermal Resistance Junction to Ambient	θ_{JA}	244	℃/W

■ ELECTRICAL CHARACTERISTICS (T_A=25℃, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage	BV_R	I_R=130μA	30			V
Forward Voltage Drop	V_{F1}	I_F=0.1A			0.375	V
	V_{F2}	I_F=0.5A			0.430	
Reverse Leakage Current	I_{R1}	V_R=15V			20	μA
	I_{R2}	V_R=30V			130	
Total Capacitance	C_T	V_R=1V, f=1MHz			170	pF
Typical Reverse Recovery Time	t_{RR}	I_F=I_R=10mA, R_L=100Ω, recover to 0.1 x I_R			4	ns

■ TYPICAL CHARACTERISTICS