



MBR0540

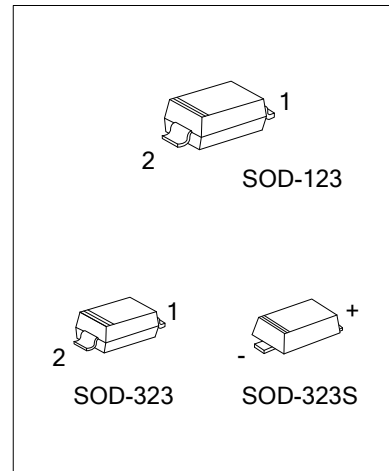
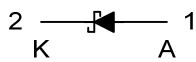
DIODE

SCHOTTKY RECTIFIER

FEATURES

- * For surface mounted applications
- * Low forward voltage drop ($V_f=0.50V$ Typ. at 0.5A)
- * Guard ring for transient and ESD protection

SYMBOL



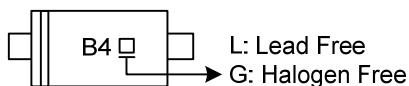
ORDERING INFORMATION

Order Number		Package	Pin Assignment		Packing
Lead Free	Halogen Free		1	2	
MBR0540L-CA2-R	MBR0540G-CA2-R	SOD-123	A	K	Tape Reel
MBR0540L-CB2-R	MBR0540G-CB2-R	SOD-323	A	K	Tape Reel
MBR0540L-CB2S-R	MBR0540G-CB2S-R	SOD-323S	A	K	Tape Reel

Note: Pin assignment: A: Anode K: Cathode

<p>MBR0540G-CA2-R</p>	<p>(1) R: Tape Reel (2) CA2: SOD-123, CB2: SOD-323, CB2S: SOD-323S (3) G: Halogen Free and Lead Free, L: Lead Free</p>
-----------------------	---

MARKING



■ ABSOLUTE MAXIMUM RATINGS (Single Diode @T_A=25°C, unless otherwise specified)

PARAMETER		SYMBOL	RATINGS	UNIT
Maximum Repetitive Peak Reverse Voltage		V _{RRM}	40	V
Maximum DC Blocking Voltage		V _R	40	V
Working Peak Reverse Voltage		V _{RWM}	40	V
Maximum RMS Reverse Voltage		V _{R(RMS)}	28	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	SOD-123	P _D	410	mW
	SOD-323		200	mW
	SOD-323S			
Storage Temperature		T _{STG}	-65 ~ +150	°C

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.

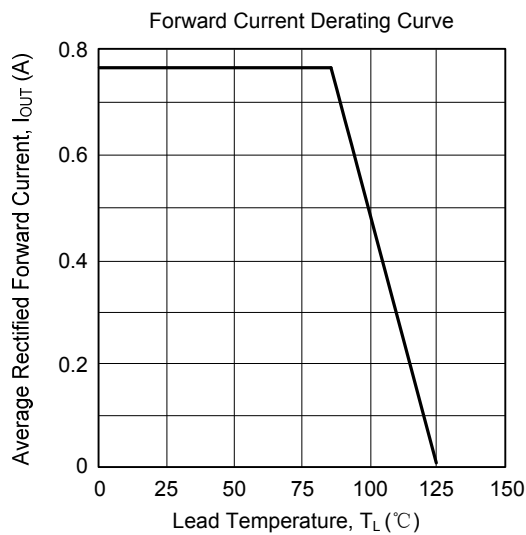
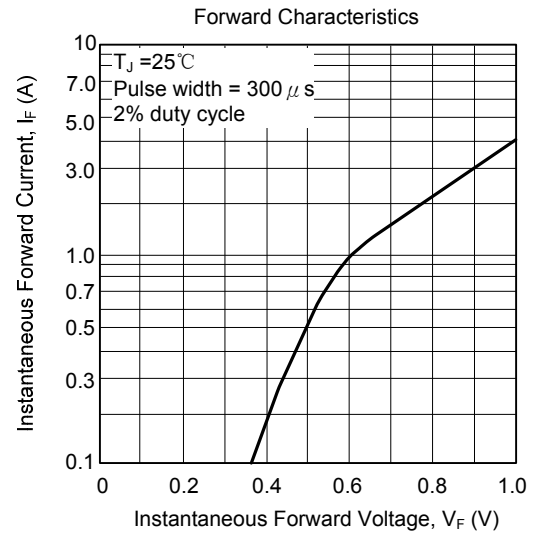
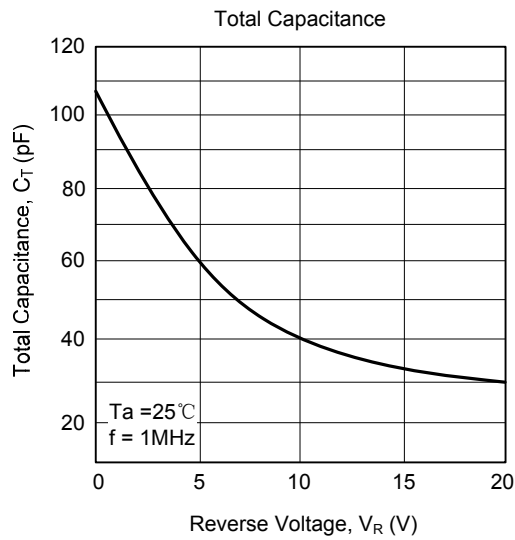
■ THERMAL DATA

PARAMETER		SYMBOL	RATINGS	UNIT
Junction to Ambient	SOD-123	θ _{JA}	244	°C/W
	SOD-323		500	°C/W
	SOD-323S			

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage	BV _R	I _R =20μA	40			V
Forward Voltage Drop	V _{F1}	I _F =0.5A			0.51	V
	V _{F2}	I _F =1A			0.62	V
Reverse Leakage Current	I _{R1}	V _R =20V			10	μA
	I _{R2}	V _R =40V			20	μA
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



UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. The information presented in this document does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice.