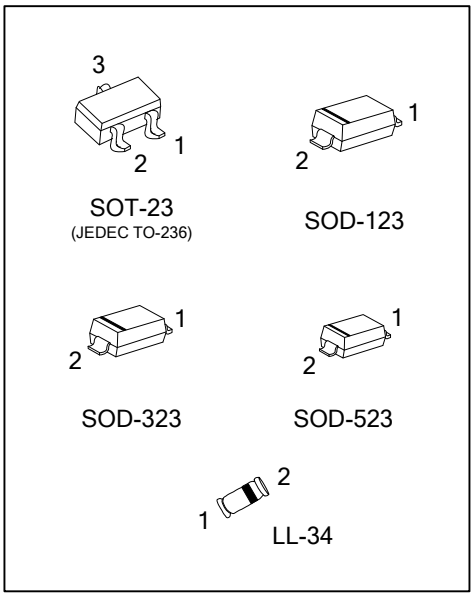
UMMSZ52XXB

ZENER DIODE

SURFACE MOUNT SILICON ZENER DIODE



■ DESCRIPTION

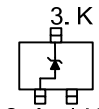
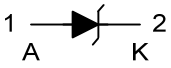
The UTC **UMMSZ52XXB** is a surface mount silicon zener diode, it uses UTC's advanced technology to provide customers with low reverse leakage current, etc.

The UTC **UMMSZ52XXB** is suitable for automated assembly processes.

■ FEATURES

* Low reverse leakage current

■ SYMBOL

SOT-23	SOD-123 / SOD-323 SOD-523 / LL34
	

■ ORDERING INFORMATION

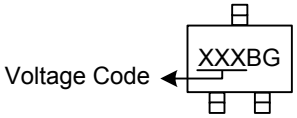
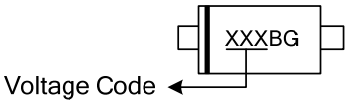
Ordering Number	Package	Pin Assignment			Packing
		1	2	3	
UMMSZ52XXBG-AE3-R	SOT-23	NC	A	K	Tape Reel
UMMSZ52XXBG-CA2-R	SOD-123	A	K	-	Tape Reel
UMMSZ52XXBG-CB2-R	SOD-323	A	K	-	Tape Reel
UMMSZ52XXBG-CC2-R	SOD-523	A	K	-	Tape Reel
UMMSZ52XXB-LL34-R	LL-34	A	K	-	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

UMMSZ52XXBG-AE3-R
(1)Packing Type
(2)Package Type
(3)Green Package
(4)Output Voltage

(1) R: Tape Reel
(2) AE3: SOT-23, CA2 : SOD-123, CB2: SOD-323
CC2: SOD-523, LL34: LL-34
(3) G: Halogen Free and Lead Free, L: Lead Free
(4) refer to ELECTRICAL CHARACTERISTICS

■ MARKING INFORMATION

PACKAGE	VOLTAGE CODE	MARKING
SOT-23	3.9: 3.9V 5.1: 5.1V 5.6: 5.6V 6.2: 6.2V 7.5: 7.5V 8.2: 8.2V 13: 13V 15:15V 18: 18V 20: 20V 22: 22V 27: 27V 33:33V	
SOD-123 SOD-323 SOD-523		

■ ABSOLUTE MAXIMUM RATINGS

PARAMETER		SYMBOL	RATINGS	UNIT
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load (Note 2)		I_{FSM}	4.0	A
Power Dissipation at 75°C (Note 1)	SOD-123/LL-34	P_D	500	mW
	SOD-323		330	
	SOD-523		250	
	SOT-23		200	
Operating Junction Temperature		T_J	-55~+150	°C

Note: 1. 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.
2. Mounted on 5.0mm^2 (.013mm thick) land areas.
3. Measured on 8.3ms, single half sine-wave or equivalent square wave, duty cycle=4 pulses per minute maximum.

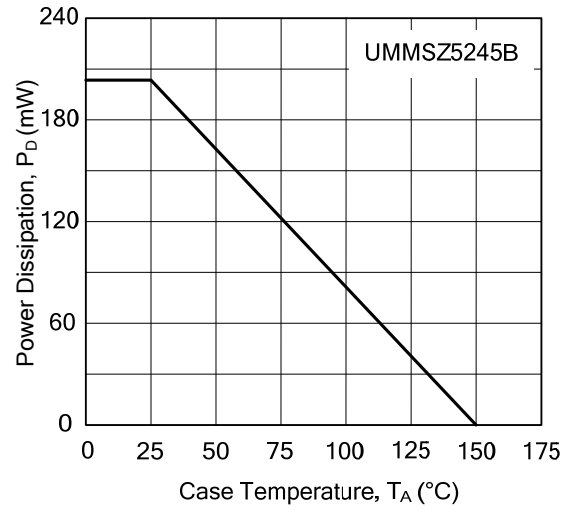
■ ELECTRICAL CHARACTERISTICS

(V_F = 1.2V Max @ I_F = 100mA for all types.)

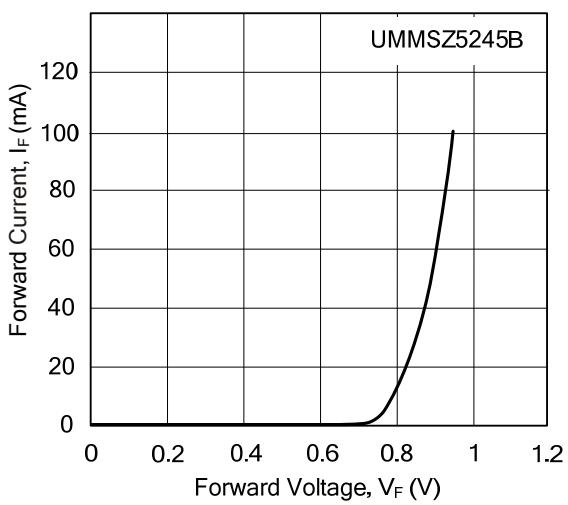
Device	Marking Code	Nominal Zener Voltage			Zener Impedance				Reverse Leakage Current		Zener Current
		V_Z @ I_{ZT} (V)			Z_{ZT} @ I_{ZT}		Z_{ZK} @ I_{ZK}		I_R @ V_R		I_{ZM} @ T_A
		MIN	TYP	MAX	Max (Ω)	I_Z(mA)	Max (Ω)	I_Z(mA)	Max (μA)	@V_R (V)	mA
UMMSZ5228B	3.9	3.71	3.9	4.1	23	20	1900	0.25	10	1.0	115
UMMSZ5231B	5.1	4.85	5.1	5.36	17	20	1600	0.25	5.0	2.0	89
UMMSZ5232B	5.6	5.32	5.6	5.88	11	20	1600	0.25	5.0	3.0	81
UMMSZ5234B	6.2	5.89	6.2	6.51	7	20	1000	0.25	5.0	4.0	73
UMMSZ5236B	7.5	7.13	7.5	7.88	6.0	20	500	0.25	3.0	6.0	61
UMMSZ5237B	8.2	7.79	8.2	8.61	8	20	500	0.25	3.0	6.0	55
UMMSZ5243B	13	12.35	13	13.65	13	9.5	600	0.25	1.0	9.9	35
UMMSZ5245B	15	14.25	15	15.75	16	8.5	600	0.25	0.5	11	30
UMMSZ5248B	18	17.1	18	18.9	21	7	600	0.25	0.1	14	25
UMMSZ5250B	20	19	20	21	25	6.2	600	0.25	0.1	15	23
UMMSZ5251B	22	20.9	22	23.1	29	5.6	600	0.25	0.1	17	21
UMMSZ5254B	27	25.65	27	28.35	41	5	600	0.25	0.1	21	16.8
UMMSZ5257B	33	31.35	33	34.65	58	3.8	700	0.25	0.1	25	13.8

■ TYPICAL CHARACTERISTICS

Power Dissipation vs. Case Temperature



Forward Voltage



Reverse Breakdown Voltage