



UCRXXX-40

Preliminary

CURRENT REGULATIVE DIODE

CURRENT REGULATOR DIODES

DESCRIPTION

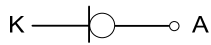
The UTC **UCRXXX-40** is a CRD diode, which supplies constant current to an electric circuit, even if the power supply voltage fluctuations or load impedance fluctuations occur, can steady a current at a fixed value.

CRD diode is used for current stabilization and current limiting.

FEATURES

- * Than 1.0V or less low voltage constant current implementation
- * Maximum voltage of 100V or more
- * Good frequency response characteristics
- * AC equivalent impedance is high
- * Negative temperature coefficient
- * Low start-up voltage
- * DC equivalent impedance is low

SYMBOL



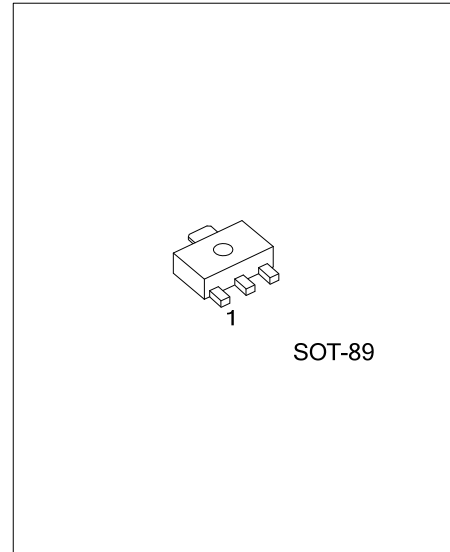
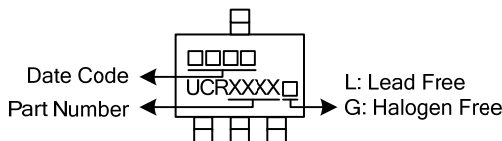
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
UCR650L-40-AB3-R	UCR650G-40-AB3-R	SOT-89	K	K	A	Tape Reel
UCR1550L-40-AB3-R	UCR1550G-40-AB3-R	SOT-89	K	K	A	Tape Reel

Note: Pin Assignment: K: Cathode A: Anode

UCR650G-40-AB3-R	(1)Packing Type	(1) R: Tape Reel
	(2)Package Type	(2) AB3: SOT-89
	(3)Green Package	(3) G: Halogen Free and Lead Free, L: Lead Free

MARKING



SOT-89

■ ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Peak Operating Voltage	P_{OV}	40	V
		Normal	V
Power Dissipation	P_D	0.5	W
Operating Junction Temperature	T_J	+125	$^\circ\text{C}$
Storage Temperature	T_{STG}	-40 ~ +125	$^\circ\text{C}$

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 CHARACTERISTICS

PARAMETER	SYMBOL	RATINGS	UNIT
Typical Thermal Resistance	θ_{JC}	43	$^\circ\text{C/W}$

■ ELECTRICAL CHARACTERISTICS (PER LEG) ($T_A=25^\circ\text{C}$, unless otherwise specified.)

PART NUMBER	MARKING	TEST VOLTAGE (V)	PINCH-OFF CURRENT			LIMITING CURRENT		LIMITING CURRENT RATIO I_{30V} / I_P
			I_P (mA)			V_K (V)	I_K (mA)	
			MIN.	TYP.	MAX.			
UCR650	650	10	5.2	6.5	7.8	≤ 3.5	$0.8 I_P$	≤ 1.1
UCR1550	1550	10	12.4	15.5	18.6	≤ 4.0	$0.8 I_P$	≤ 1.1

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