



CHENMKO ENTERPRISE CO.,LTD

Lead free devices

SURFACE MOUNT
SCHOTTKY BARRIER DIODE
VOLTAGE 10 Volts CURRENT 3 Ampere

CH331H-10PT

APPLICATION

- * Low power rectification
- * For power supply
- * For detection and step-up-conversion

FEATURE

- * Small surface mounting type. (SC-76/SOD-323)
- * Low IR. ($I_r=10\mu A$ Typ.)
- * High reliability
- * High current rectifier Schottky diode with low VF drop
- * Total power dissipation, $P_{tot}= 1350 \text{ mW}$ @ $T_S = 28^\circ\text{C}$.

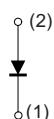
CONSTRUCTION

- * Silicon epitaxial planar

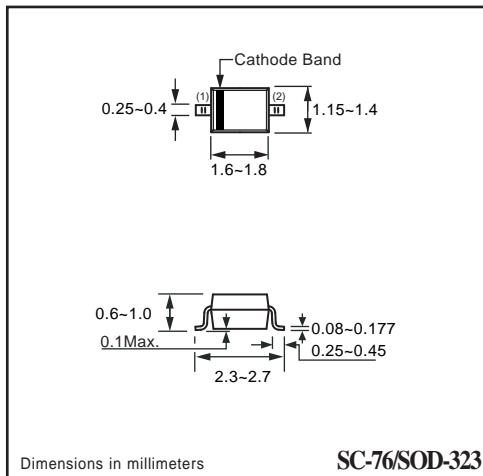
MARKING

- * JK

CIRCUIT



SC-76/SOD-323



Dimensions in millimeters

SC-76/SOD-323

MAXIMUM RATINGS (At $T_A = 25^\circ\text{C}$ unless otherwise noted)

RATINGS	SYMBOL	CH331H-10PT			UNITS
		MIN.	TYP.	MAX.	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	-	-	10	Volts
Maximum RMS Voltage	V_{RMS}	-	-	7	Volts
Maximum DC Blocking Voltage	V_{DC}	-	-	10	Volts
Maximum Average Forward Rectified Current	I_O	-	-	3.0	Amps
Peak Forward Surge Current at 8.3 mSec single half sine-wave	I_{FSM}	-	-	5	Amps
Typical Junction Capacitance between Terminal (Note 1)	C_J	12	25	30	pF
Maximum Operating Temperature Range	T_J	-	-	+150	°C
Storage Temperature Range	T_{STG}	-55	-	+150	°C

ELECTRICAL CHARACTERISTICS (At $T_A = 25^\circ\text{C}$ unless otherwise noted)

CHARACTERISTICS	SYMBOL	CH331H-10PT			UNITS
		MIN.	TYP.	MAX.	
Maximum Instantaneous Forward Voltage at $I_F = 10\text{mA}$ $I_F = 100\text{mA}$ $I_F = 500\text{mA}$ $I_F = 1000\text{mA}$	V_F	0.2	0.24	0.3	Volts
		0.26	0.32	0.38	
		0.32	0.4	0.5	
		0.36	0.48	0.6	
Maximum Average Reverse Current at $V_R = 5\text{V}$ @ $T_A = 25^\circ\text{C}$ $V_R = 8\text{V}$ @ $T_A = 25^\circ\text{C}$	I_R	-	40	50	uAmps
		-	75	100	

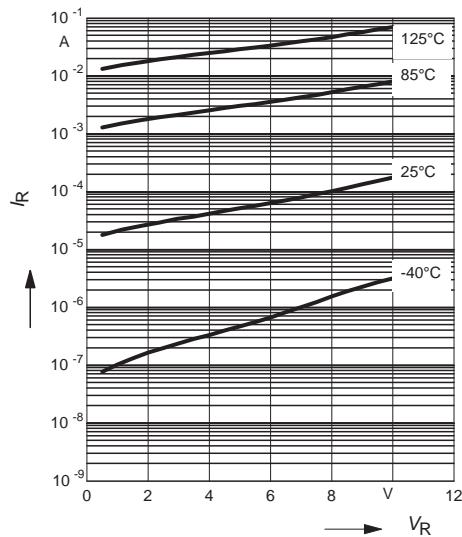
NOTES : 1. Measured at 1.0 MHz and applied reverse voltage of 5.0 volts.
2. ESD sensitive product handling required.

2002-11

RATING CHARACTERISTIC CURVES (CH331H-10PT)

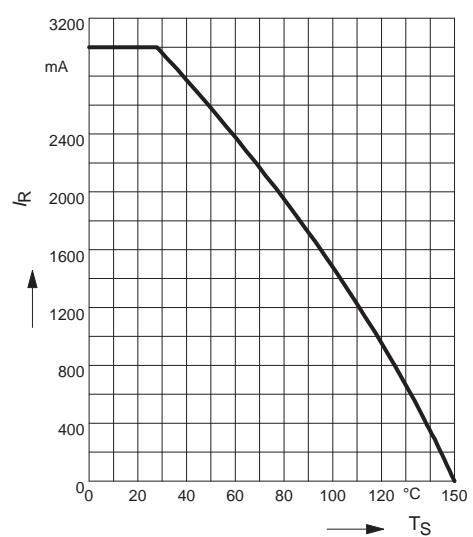
Reverse current $I_R = f(V_R)$

T_A = Parameter



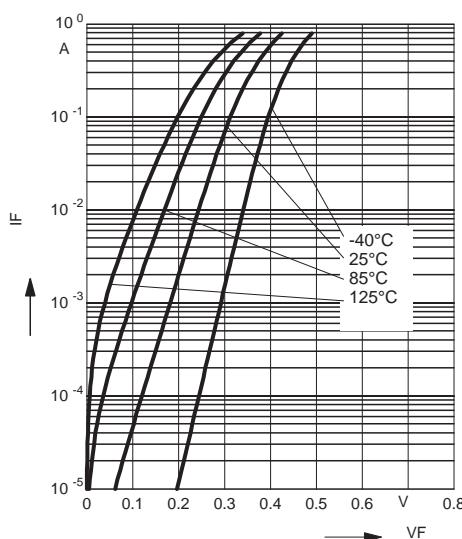
Forward current $I_F = f(T_S)$

T_A = Parameter



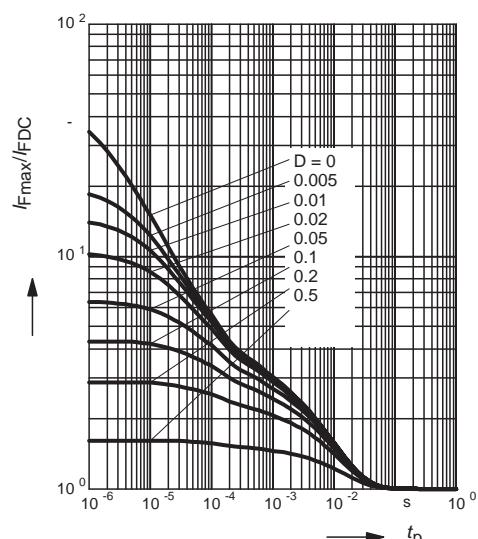
Forward current $I_F = f(V_F)$

T_A = Parameter



Permissible Pulse Load

$I_{Fmax}/I_{FDC} = f(t_p)$



RATING CHARACTERISTIC CURVES (CH331H-10PT)

Permissible Puls Load $R_{\text{thJS}} = f(t_p)$

