



# SIC279

134.2 kHz, Multi-Purpose R/W HDX RFID IC with 192 bits of User Memory  
REV 1.0

## Features Summary

### Highlight Features

- New improvement from its predecessor to fully support
- Industrial application (BDE format)
- Customizable, long read range R/W RFID transponder
- Half duplex FM telegram 124/134 kHz contactless read/write data

### Interface and Peripheral

- Compliant with BDE format (for waste management application)
- Fully compliant with ISO 11784/11785 HDX R/O Animal tag
- ID data protocol/structure
- Fully compliant with mainstream HDX R/W ID format

## Applications

- HDX industrial application
- Waste bin tag (BDE)
- HDX ISO 11784/85 Animal Tag, ICAR compliant RFID tags
- Long Read-Range EAS Transponders

### Memory

- R/W user memory of 6X32 (192 bits)
- Supporting user access to factory unique ROM ID (UID), preventing chips from cloning
- Direct Access/Write Mode
- Protected Direct Access/Write Mode
- One-time programming (OTP) configuration
- Write endurance > 100,000 R/W cycles
- Memory retention > 20 years

### Commands

- Proprietary command protocol
- Comprehensive error logging reports
- Support cascade commands

### Operating Conditions

- Carrier frequency  $f_c$  is 134.2 kHz
- Operating temperature:  $-25^{\circ}\text{C}$  to  $85^{\circ}\text{C}$

### Package

- Wedge Transponder



# Revision History

Revision	Date	Change/Update Comment
1.0	5 Jun 2025	Official release

# Ordering information

Part No.	Description	Configuration	Package	Standard Packing
<b>P29AW303E10SU2922C3</b>	SIC279-22, LF HDX IC with RW memory 512 bits and Industrial ID Wedge 134.2kHz, Canister, RFID TAG	Custom #22	Wedge (Epoxy compound, Laser Mark)	2,000 pcs/Canister
<b>P29AW303E10SU2925C3</b>	SIC279-25, LF HDX IC with Industrial ID - Read only Wedge 134.2kHz, Canister, RFID TAG	Custom #25	Wedge (Epoxy compound, Laser Mark)	2,000 pcs/Canister
<b>P29AW303E10SU2926ES</b>	SIC279-26, LF HDX IC with RW memory 512 bits and Industrial ID Wedge 134.2kHz, ESD bag, RFID TAG	Custom #26	Wedge (Epoxy compound, Laser Mark)	500 pcs/ESD bag
<b>P29AW303E10SU2927C3</b>	SIC279-27, LF HDX IC with Industrial ID - Read only Wedge 134.2kHz, Canister, RFID TAG	Custom #27	Wedge (Epoxy compound, Laser Mark)	2,000 pcs/Canister
<b>P29AW303E10SU2928C3</b>	SIC279-28, LF HDX IC with RO memory 512 bits and Industrial ID Wedge 134.2kHz, Canister, RFID TAG	Custom #28	Wedge (Epoxy compound, Laser Mark)	2,000 pcs/Canister

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## Package information

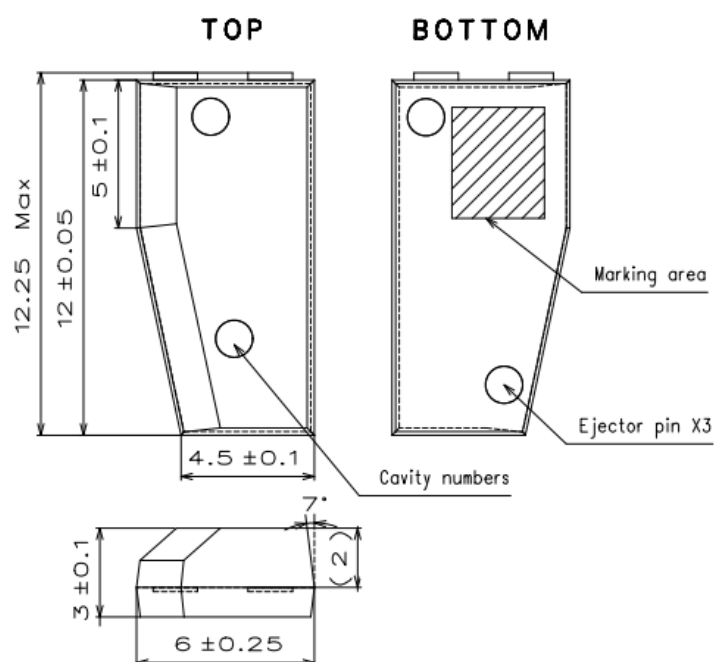


Figure 1: Drawing and dimension

Table 1: Package specifications

Parameter	SIC279
Case material	Epoxy
IP rating	IP68
Marking type	Laser

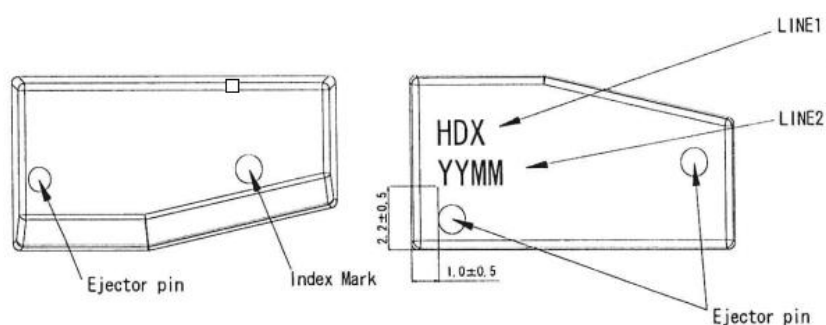


Figure 2: Marking Specification

### Marking Details

Line#1: Mark as "HDX" fixed

Line#2: Production lot Year-Month (4 Characters)

Font size: 1.2mm, font type: Tahoma

Index Mark: Show cavity no.

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