

ANCAP Safety Rating

TOYOTA 86 (From 2012)



Test Variant:	Subaru BRZ
Variant Applicability*:	All Toyota 86 variants
Kerb Mass:	1260 kg
Vehicles Built:	2012
Engine:	2.0
Category:	Sports Car

Note: This rating is based on ANCAP crash tests of the Subaru BRZ, conducted under the Niche Vehicle Policy. ANCAP was provided with information which showed that the BRZ results apply to Toyota 86.



Frontal offset test at 64 km/h (Subaru BRZ)

Airbags	ESC	Frontal Offset	Side Impact	Pole	Whiplash	Pedestrian	Seat Belt Reminders	Overall Score	ANCAP Safety Rating
Frontal + Side + Head + Knee	Standard	14.97 (out of 16)	15.43 (out of 16)	2 (out of 2)	GOOD	ACCEPTABLE	2 (out of 3)	34.40 (out of 37)	★★★★★

The Toyota 86 was introduced in Australia and New Zealand in 2012. This ANCAP safety rating applies to all variants.

Dual frontal, side chest and side head airbags (curtains) and a driver knee airbag are standard. Antilock brakes (ABS), electronic brake distribution (EBD) and electronic stability control (ESC) are also standard. Advanced seat belt reminders are fitted to both front seats.

In the frontal offset crash test driver and passenger leg protection was acceptable. Passenger chest protection was also acceptable. In the side impact crash test driver chest protection was acceptable. Head protection in the side pole test was good.

OCCUPANT PROTECTION

Frontal Offset Test.

Each body region is scored out of 4 points

Head / neck:	4.00 points
Chest:	3.81 points
Upper legs:	4.00 points
Lower legs:	3.16 points

The passenger compartment held its shape well in the frontal offset test. Pedal and steering wheel displacements were well controlled. Driver and passenger contact with the airbags was stable. All doors remained closed during the crash. After the crash all doors could be opened with normal effort.

Side Impact Test.

Each body region is scored out of 4 points

Head:	4.00 points
Chest:	3.43 points
Abdomen:	4.00 points
Pelvis:	4.00 points

Mostly good protection was provided for the driver in the side impact test. There was a slight risk of serious chest injury.

Pole Test.

Scored out of 2 points

The vehicle was eligible for a side pole test because it has side curtain airbags. The vehicle scored the maximum 2 points for head protection in this test.

Whiplash Protection Test.

Whiplash protection is assessed to the RCAR Protocol

Geometric test:	GOOD
Dynamic test:	GOOD

Injury Outcomes.



Whiplash



PEDESTRIAN PROTECTION

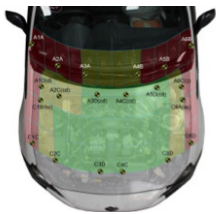
Pedestrian Test.

Scored out of 36 points

Child head impacts: 9.34 points
 Adult head impacts: 5.59 points
 Upper leg impacts: 6.00 points
 Lower leg impacts: 4.96 points

Based on ANCAP tests of the Subaru BRZ. The majority of child zones on the bonnet performed well. The windscreen base could provide better protection to the adult head. Full points were awarded for the bonnet leading edge. The bumper mostly performed well.

Child and adult head impact



Adult leg impact
 (upper and full legforms)



Toyota 86

SAFETY FEATURES

These specifications are subject to change. Please check with manufacturer for the latest specifications. For a description of these safety features and safety rating requirements see the ANCAP Road Map.

Safety Assist Technology (SAT)	Availability
Front airbag - driver	S
Front airbag - passenger	S
Side airbags (chest protection) - front seats	S
Side airbags (head protection) - front seats	S
Side airbags (head protection) - 2nd row seats	S
Knee airbag - driver	S
Three-point seat belts for all forward facing seats	S
Seat belt pretensioners (front / rear outboard)	S / X
Intelligent seat belt reminder - driver	S
Intelligent seat belt reminder - front passenger	S
Intelligent seat belt reminder - 2nd row seats	X
Head restraints for all seats (front / rear)	S / X
Antilock brakes (ABS)	S
Electronic brake distribution (EBD)	S
Emergency brake assist (EBA)	S
Electronic stability control (ESC)	S
Adaptive cruise control (ACC)	X
Autonomous emergency braking (AEB)	X
Lane support system	X
Daytime running lights	S
Automatic Headlights	V

S = Standard on all variants.
 O = Optional on base variant. May be standard on higher variants.
 V = Not available on base variant but standard or optional on higher variants.
 X = Not available on any variant.

INJURY MEASUREMENTS

Body Region	Frontal offset test at 64 km/h (v5.1)		Side impact test at 50 km/h (v5.1)
	Driver	Passenger	Driver
Head			
HIC	285.00	140.00	52.00
Acceleration (g for 3ms)	42.30	29.90	22.60
Neck			
Shear (kN)	0.56	0.60	-
Tension (kN)	0.96	0.53	-
Extension (Nm)	11.70	23.90	-
Chest			
Acceleration (g for 3ms)			-
Compression (mm)	18.81	23.34	16.90
Viscous criterion (m/s)	0.05	0.10	0.11
Abdomen			
Force (kN)	-	-	0.85
Pelvis			
Force (kN)	-	-	2.60
Upper legs			
Force left (kN)	2.34	0.39	
Force right (kN)	1.99	0.88	
Knee displacement left (mm)	1.43	0.27	
Knee displacement right (mm)	1.15	0.17	
Lower legs			
Force left (kN)	2.55	2.36	
Force right (kN)	2.81	2.15	
Index (upper / lower) left	0.49 / 0.44	0.49 / 0.51	
Index (upper / lower) right	0.40 / 0.59	0.52 / 0.36	

INTRUSION MEASUREMENTS

Steering Column

Rearwards:	70mm
Downwards:	5mm
Sideways:	13mm

Pedals

Brake (rearwards):	72mm
Throttle (upwards):	44mm
A-Pillar (forwards):	8mm

Note: Steering column and pedal movements are measured relative to the driver's seat.

SCORE DEDUCTIONS

Deductions from frontal offset test scores

No deductions for frontal offset test.

Deductions from side impact test score

Excessive backplate load: 0.57 points from chest score.

Deductions from pole test score

No deductions for pole test.

* For information about the application of ANCAP ratings to model variants see the ANCAP Variant Policy. In brief, ratings do not automatically extend to variants that have different body styles, engine configurations, driven wheels or occupant restraint systems (e.g. fewer airbags). In these cases ANCAP considers technical evidence submitted by manufacturers before deciding on extending a rating to additional variants of a model.

^ Refer ANCAP Rating Road Map (www.ancap.com.au/media).

DOCUMENT REF: 86_12
 CREATED / REVISED: 3/4/2013