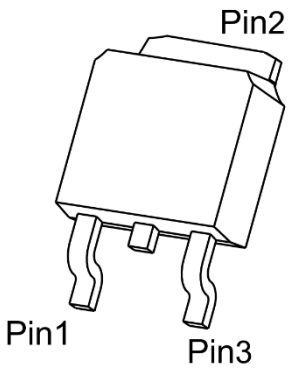
WSR4510CDSCE

SCHOTTKY BARRIER RECTIFIER

Features

- 10A Schottky barrier diode
- Schottky barrier rectifier
- Excellent high temperature stability
- Low forward voltage
- High forward surge capability
- High current capability
- RoHS Compliant & HF



Mechanical Data

- Case: TO-252 molded plastic package



Maximum Ratings (Ta=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	WSR4510CDSCE	UNIT
Repetitive Peak Reverse Voltage	V_{RRM}	45	V
Average Rectified Output Current @60Hz -sine wave, R- load, Ta=25℃	I_O	5(per leg)	A
		10(total device)	
Forward Surge Current (Non-repetitive) @ 60Hz Half-sine wave,1 cycle, Ta=25℃	I_{FSM}	100	A
Storage Temperature	T_{stg}	-55 ~+150	℃
Junction Temperature	T_j	-55 ~+150	℃

Electrical Characteristics(Ta=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	WSR4510CDSCE		UNIT
			Typ	Max	
Maximum instantaneous forward voltage drop per diode	V_F	I_F =5A(per leg)	0.55	0.6	V
Leakage Current	I_R	V_R=V_{RRM}, Tj=25℃	/	0.1	mA
		V_R=V_{RRM}, Tj=125℃	20	/	

Thermal Characteristics (Ta=25℃ Unless otherwise specified)

PARAMETER		SYMBOL	WSR4510CDSCE	UNIT
Thermal Resistance	Between Junction to Case	$R_{\theta J-C}$	5.0	℃/W

Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

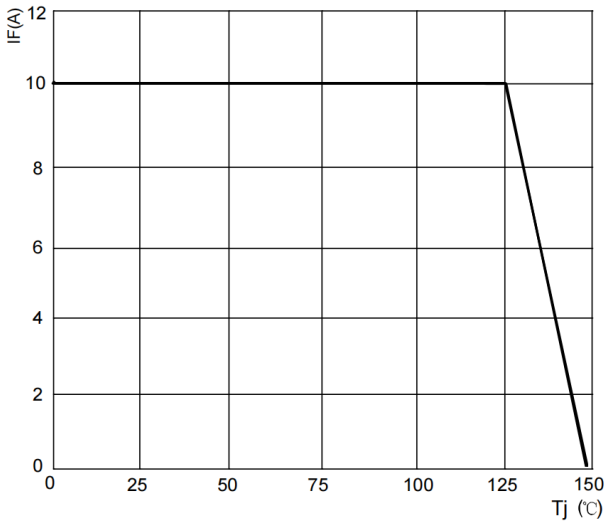


FIG.2: TYPICAL FORWARD CHARACTERISTICS

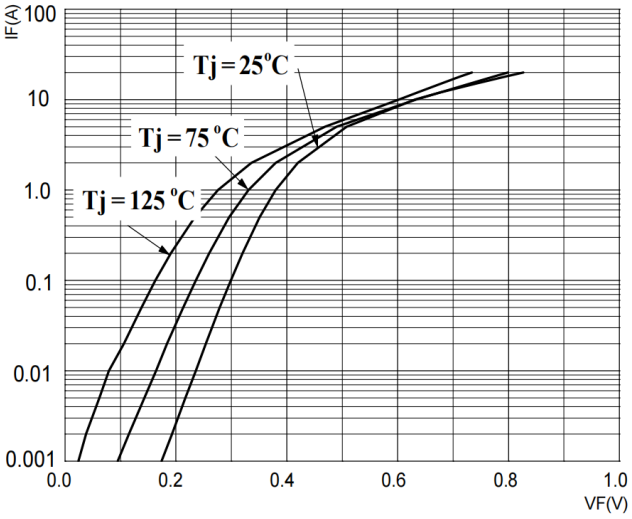
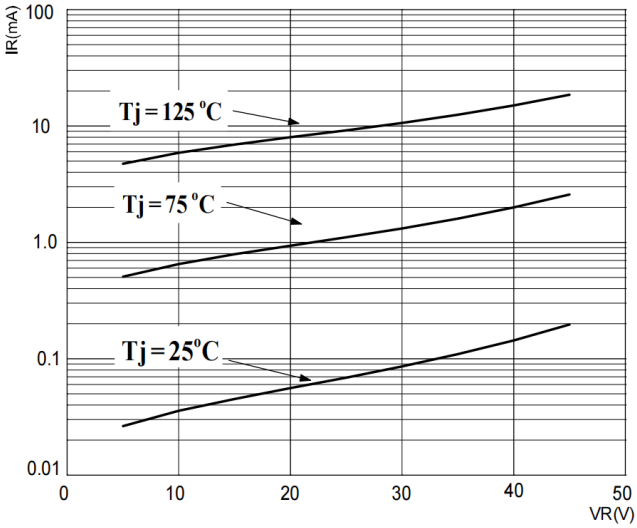
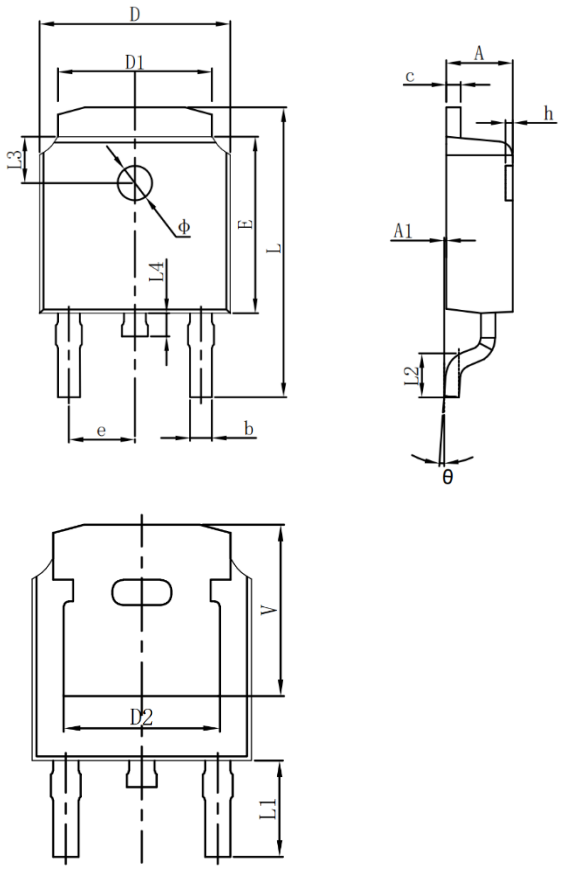


FIG.3: TYPICAL REVERSE CHARACTERISTICS



Note: The above typical parameters or typical characteristics are only indicative and do not make specific guarantees. If detailed values are required, additional communication and provision are required.

Outline Dimensions



TO-252		
Symbol	Dimensions In Millimeters	
	Min	Max
A	2.20	2.40
A1	0.00	0.13
b	0.70	0.86
c	0.46	0.58
D	6.50	6.70
D1	5.10	5.46
D2	4.83REF	
E	6.00	6.30
e	2.18	2.39
L	9.71	10.32
L1	2.90REF	
L2	1.40	1.70
L3	1.60REF	
L4	0.60	1.00
Φ	1.10	1.30
θ	0°	8°
h	0.00	0.30
V	5.25REF	

Marking Code

Part Number	**WSR4510CDSCE**
Marking Code	MBR1045CDS

Package Information

Quantity : 2500pcs/reel

Contact Information

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Product Specification Statement

The product specification aims to provide users with a reference regarding various product parameters, performance, and usage. It presents certain aspects of the product's performance in graphical form and is intended solely for users to select product and make product comparisons, enabling users to better understand and evaluate the characteristics and advantages of the product. It does not constitute any commitment, warranty, or guarantee.

The product parameters described in the product specification are numerical values, characteristics, and functions obtained through actual testing or theoretical calculations of the product in an independent or ideal state. Due to the complexity of product applications and variations in test conditions and equipment, there may be slight fluctuations in parameter test values. WAYON shall not guarantee that the actual performance of the product when installed in the customer's system or equipment will be entirely consistent with the product specification, especially concerning dynamic parameters. It is recommended that users consult with professionals for product selection and system design. Users should also thoroughly validate and assess whether the actual parameters and performance when installed in their respective systems or equipment meet their requirements or expectations. Additionally, users should exercise caution in verifying product compatibility issues, and WAYON assumes no responsibility for the application of the product.

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Users are advised to pay attention to the parameter limit values specified in the product specification and maintain a certain margin in design or application to ensure that the product does not exceed the parameter limit values defined in the product specification. This precaution should be taken to avoid exceeding one or more of the limit values, which may result in permanent irreversible damage to the product, ultimately affecting the quality and reliability of the system or equipment.

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