

# AUTOMOTIVE SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 60 Volts  
 Forward Current - 2.0Amperes

## Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,low forward voltage drop
- High surge capability
- High temperature soldering guaranteed:260°C /10 seconds at terminals
- Component in accordance to RoHS 2015/863/EU
- AEC-Q101 qualified and PPAP capable



## Mechanical Data

- Case: JEDEC SMA(DO-214AC) molded plastic body
- Terminals: Solder Plated, solderable per MIL-STD-750,method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.002ounce, 0.064 gram
- Meets MSL 1 Requirements
- ESD Rating:MM:Class M4 ;HBM:Class 3B

SMA(DO-214AC)



Marking:

xxxx:Date code  
 SS26-V:Type

## Typical Applications

For use in low voltage ,high frequency inverters ,DC/DC converters,  
 free wheeling ,and polarity protection applications

## Maximum Ratings

(Ratings at 25°C ambient temperature unless otherwise specified )

Parameter	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	60	V
Maximum average forward rectified current (see fig.1)	I <sub>F(AV)</sub>	2.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated TL)	I <sub>FSM</sub>	50	A
Operating junction temperature range	T <sub>J</sub>	-55 to+150	°C
Storage temperature range	T <sub>stg</sub>	-55 to+150	°C

## RATINGS AND CHARACTERISTICS OF KWSS26-V

Electrical Characteristics ( $T_a=25^{\circ}\text{C}$  Unless Otherwise Noted)

Parameter	Test Conditions		Symbol	Typ.	Max.	Unit
Instaneous forward voltage	$T_j=25^{\circ}\text{C}$	$I_f=1.0\text{A}$	$V_F$ <sup>1)</sup>	0.47	–	V
		$I_f=2.0\text{A}$		0.58	0.65	
	$T_j=125^{\circ}\text{C}$	$I_f=1.0\text{A}$		0.41	–	
		$I_f=2.0\text{A}$		0.52	0.59	
Reverse current	$T_j=25^{\circ}\text{C}$	$V_R=60\text{V}$	$I_R$ <sup>2)</sup>	–	100	$\mu\text{A}$
	$T_j=125^{\circ}\text{C}$			–	20	<b>mA</b>
Typical junction capacitance	4V, 1MHz		$C_J$	78		<b>pF</b>

Notes: 1. Pulse test: 300  $\mu\text{s}$  pulse width, 1% duty cycle

2. Pulse test: pulse width  $\leq 40\text{ms}$

## Thermal Characteristics

Parameter	Symbol	KWSS26-V	Unit
Typical thermal resistance <sup>3)</sup>	$R_{\theta JA}$	88.0	$^{\circ}\text{C}/\text{W}$
	$R_{JL\theta}$	28.0	

3. Mounted with 1.0" x 1.0" (25.4 mm x 25.4 mm) copper pad areas 1 oz FR4 Board

## Availabale Pack Information

Product code	Pack	Reel Size (mm)	Quantity (pcs/reel)	Box Size L×W×H (mm)	Quantity (reel/box)	Carton Size L×W×H (mm)	Quantity (box/carton)
KWSS26-V-SMA	T/R	$\Phi 330$	5000	330×35×333	2	364×364×360	8

## RATINGS AND CHARACTERISTICS OF KWSS26-V

Fig. 1-Forward Current Derating Curve

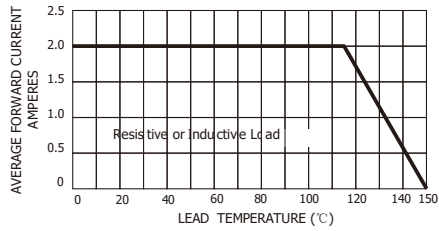


Fig. 2-Maximum Non-repetitive Peak Forward Surge Current

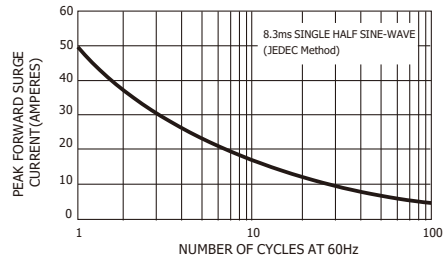


Fig. 3-Typical Instantaneous Forward Characteristics

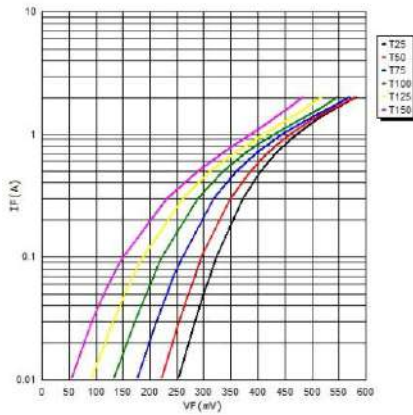


Fig. 4-Typical Reverse Characteristics

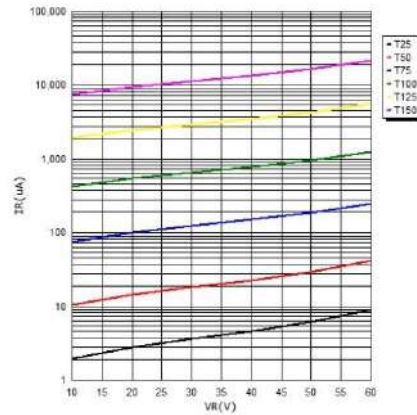
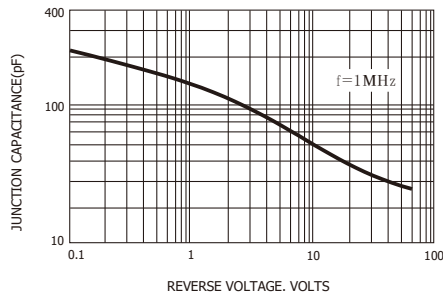
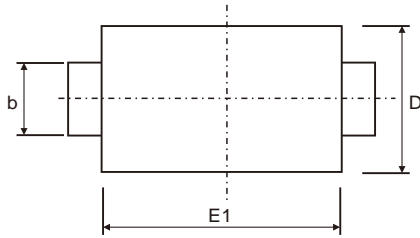


FIG. 5-TYPICAL JUNCTION CAPACITANCE

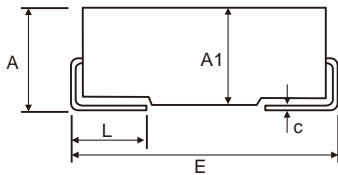


## PACKAGE OUTLINE DIMENSIONS

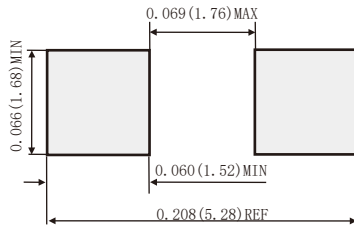
### SMA(DO-214AC)



Sym	Value(millimeters)		
	Min	Typ	Max
A	1.90	-	2.29
A1	1.83	-	2.16
b	1.25	-	1.65
c	0.15	-	0.31
D	2.40	-	2.80
E	4.70	-	5.28
E1	3.99	-	4.70
L	0.76	-	1.52



### Suggested PAD Layout



Dimensions in inches and (millimeters)