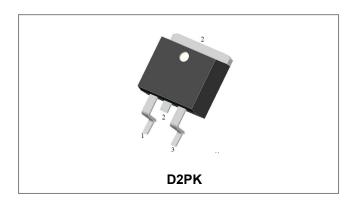






## 25TQ015S SCHOTTKY RECTIFIER



#### **Features**

- 100 °C T<sub>J</sub> operation
- Low forward voltage drop
- High purity, high temperature epoxy encapsulation for enhanced
- · mechanical strength and moisture resistance
- High frequency operation
- Guard ring for enhanced ruggedness and long term reliability
- This is a Pb Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

### **Circuit Diagram**



### **Applications**

- Switching power supply
- Converters
- Free-Wheeling diodes
- Reverse battery protection

### **Maximum Ratings:**

Characteristics	Symbol	Condition	Max.	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	-	15	V
Average Rectified Forward Current	I <sub>F (AV)</sub>	50% duty cycle @Tc=90°C, rectangular wave form	25	Α
Peak One Cycle Non-Repetitive Surge Current	I <sub>FSM</sub>	8.3ms, Half Sine pulse, T <sub>C</sub> = 25 °C	150	Α

### **Electrical Characteristics:**

Characteristics	Symbol	Condition	Тур.	Max.	Units
Forward Voltage Drop *	V <sub>F1</sub>	@ 25A, Pulse, T <sub>A</sub> = 25 °C	0.35	0.45	V
Reverse Current *	I <sub>R1</sub>	$@V_R = \text{rated } V_R$ $T_J = 25  ^{\circ}\text{C}$	3.5	15	mA
Junction Capacitance	Ст	$@V_R = 5V, T_C = 25 °C$ $f_{SIG} = 1MHz$	2200	2500	pF
Series Inductance	Ls	Measured lead to lead 5 mm from package body	8.0	-	nH
Voltage Rate of Change	dv/dt	-	-	10,000	V/μs

<sup>\*</sup> Pulse width < 300 µs, duty cycle < 2%





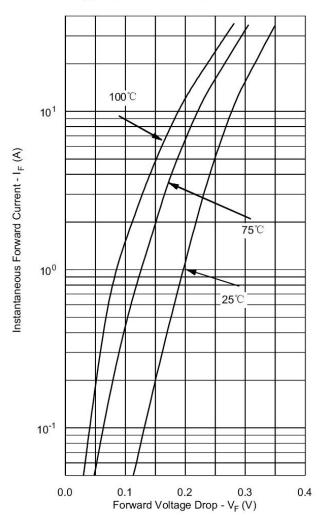


### **Thermal-Mechanical Specifications:**

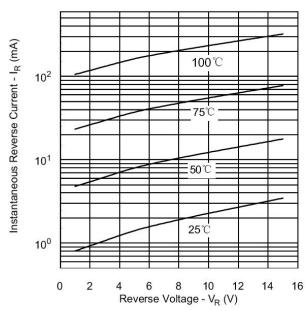
Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	TJ	-	-55 to +100	°C
Storage Temperature	T <sub>stg</sub>	-	-55 to +100	°C
Typical Thermal Resistance Junction to Case	Rejc	DC operation	0.8	°C/W
Approximate Weight	wt	-	1.85	g
Case Style	D <sup>2</sup> PAK			

### **Ratings and Characteristics Curves**

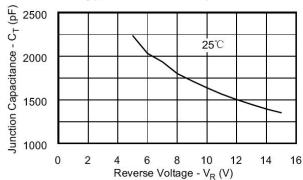
### **Typical Forward Characteristics**



### **Typical Reverse Characteristics**



#### **Typical Junction Capacitance**



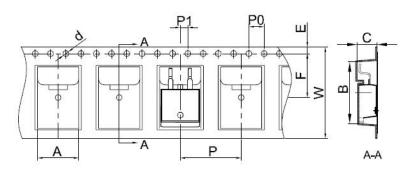
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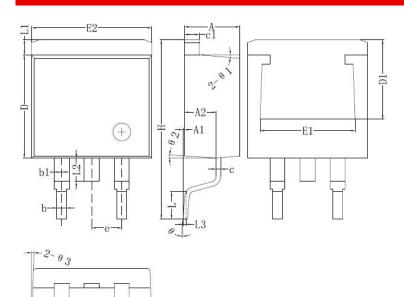


# Carrier Tape Specification D<sup>2</sup>PAK



Symbol	Millimeters		
Зуппоот	Min.	Max.	
A	10.70	10.90	
В	16.03	16.23	
С	5.11	5.31	
d	1.45	1.65	
E	1.65	1.85	
F	11.40	11.60	
P0	3.90	4.10	
Р	15.90	16.10	
P1	1.90	2.10	
W	23.90	24.30	

#### Mechanical Dimensions D<sup>2</sup>PAK



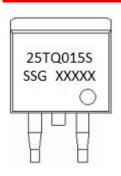
Symbol	Millimeters			
Syllibol	Min.	Typical	Max.	
Α	4.47	4.70	4.85	
A1	0	0.10	0.25	
A2	2.59	2.69	2.89	
b	0.71	0.81	0.96	
b1	1.17	1.27	1.37	
С	0.31	0.38	0.61	
c1	1.17	1.27	1.37	
D	8.50	8.70	8.90	
D1	6.40			
E	10.01	10.16	10.31	
E1	7.6			
E2	9.98	10.08	10.31	
е		2.54		
Н	14.6	15.1	15.6	
L	2.00	2.30	2.74	
L1	1.12	1.27	1.42	
L2	1.30		2.20	
L3		0.25BSC		
е	0	-	8°	
e1		5°		
e2		4°		
e3		4°		

### Ordering Information

Device	Package	Shipping
25TQ015S	D <sup>2</sup> PAK (Pb-Free)	800 pcs/ reel
	(1 b-1 100)	

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

### **Marking Diagram**



Where XXXXX is YYWWL

25 = Forward Current (25A)
TQ = Device Type
015 = Reverse Voltage (15V)
S = Package type
SSG = SSG

 SSG
 = SSG

 YY
 = Year

 WW
 = Week

 L
 = Lot Number

Cautions: Molding resin

Epoxy resin UL:94V-0

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