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10A, 20V - 150V Dual Common Cathode Schottky Rectifiers

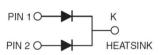
FEATURES

- Low power loss, high efficiency
- Ideal for automated placement
- Guardring for overvoltage protection
- High surge current capability
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21









MECHANICAL DATA

Case: TO-263AB (D²PAK)

Molding compound, UL flammability classification rating 94V-0

Moisture sensitivity level: level 1, per J-STD-020 Part No. with suffix "H" means AEC-Q101 qualified

Packing code with suffix "G" means green compound (halogen-free) **Terminal:** Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 2 whisker test

Polarity: As marked

Weight: 1.37 g (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted)										
PARAMETER	SYMBOL	SRS 1020	SRS 1030	SRS 1040	SRS 1050	SRS 1060	SRS 1090	SRS 10100	SRS 10150	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	90	100	150	V
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	63	70	105	V
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	90	100	150	V
Maximum average forward rectified current	I _{F(AV)}	10					Α			
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	120				Α				
Maximum instantaneous forward voltage (Note 1) I _F = 5 A	V _F		0.55		0.	70	0.	90	1.00	V
T _J =25°C				0.5	I			0.1		
Maximum reverse current @ rated V _R T _J =100°C	I _R		15		1	0		-		mA
T _J =125°C		-			5		1			
ypical thermal resistance R _{eJC}		2						°C/W		
Operating junction temperature range T _J		- 55 to +125 - 55 to +150				°C				
Storage temperature range T _{ST0}		- 55 to +150				°C				

Note 1: Pulse test with PW=300µs, 1% duty cycle

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ORDERING INFORMATION					
PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX (*)	PACKAGE	PACKING
SRS10xx	Н	RN	G	D ² PAK	800 / 13" Paper reel
(Note 1)	11	MN	G		800 / 13" Plastic reel

Note 1: "xx" defines voltage from 20V (SRS1020) to 150V (SRS10150)

^{*:} Optional available

EXAMPLE					
PREFERRED PART NO.	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
SRS1060HRNG	SRS1060	Н	RN	G	AEC-Q101 qualified Green compound

RATINGS AND CHARACTERISTICS CURVES

(T_A=25°C unless otherwise noted)

FIG.1 FORWARD CURRENT DERATING CURVE

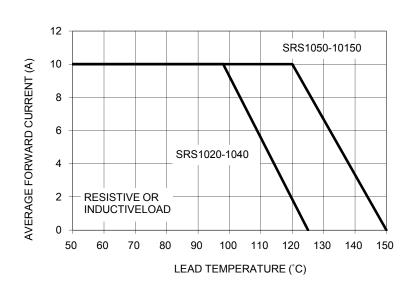


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

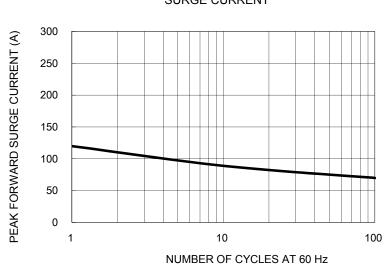


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

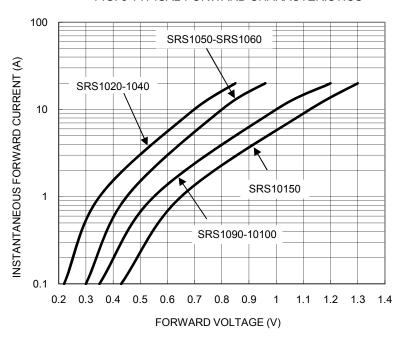


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

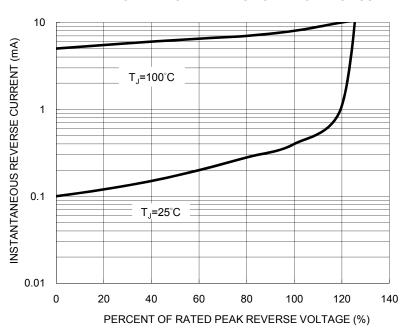






FIG. 5 TYPICAL JUNCTION CAPACITANCE

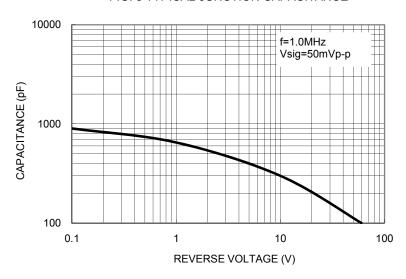
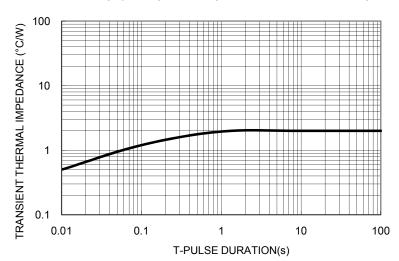
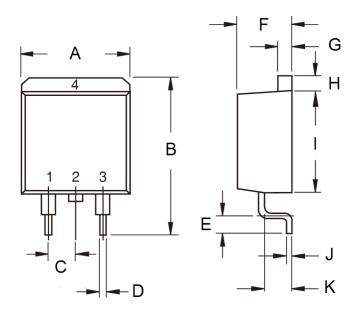


FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE

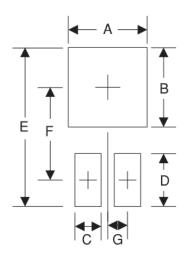


PACKAGE OUTLINE DIMENSIONS TO-263AB (D²PAK)



DIM.	Unit	(mm)	Unit (inch)		
DIIVI.	Min	Max	Min	Max	
Α	-	10.5	1	0.413	
В	14.60	15.88	0.575	0.625	
С	2.41	2.67	0.095	0.105	
D	0.68	0.94	0.027	0.037	
Е	2.29	2.79	0.090	0.110	
F	4.44	4.70	0.175	0.185	
G	1.14	1.40	0.045	0.055	
Η	1.14	1.40	0.045	0.055	
I	8.25	9.25	0.325	0.364	
J	0.36	0.53	0.014	0.021	
K	2.03	2.79	0.080	0.110	

SUGGESTED PAD LAYOUT



Symbol	Unit (mm)	Unit (inch)
Α	10.8	0.425
В	8.3	0.327
С	1.1	0.043
D	3.5	0.138
E	16.9	0.665
F	9.5	0.374
G	2.5	0.098

MARKING DIAGRAM



P/N = Specific Device Code

G = Green Compound

YWW = Date Code

F = Factory Code



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