# imall

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# 10A, 20V - 150V Isolated Schottky Barrier Rectifiers

# FEATURES

- Low power loss, high efficiency
- Guard ring for over-voltage protection
- High surge current capability
- UL Recognized File # E-326243
- 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: ITO-220AC

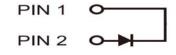
Molding compound: UL flammability classification rating 94V-0 Part no. with suffix "H" means AEC-Q101 qualified Packing code with suffix "G" means green compound (halogen-free) **Terminal:** Matte tin plated leads, solderable per JESD22-B102 Meet JESD 201 class 2 whisker test **Polarity:** As marked **Mounting torque:** 0.56 Nm max. **Weight:** 1.7 g (approximately)







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MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted)										
PARAMETER	SYMBOL	SRAF	SRAF	SRAF	SRAF	SRAF	SRAF	SRAF	SRAF	UNIT
PANAMETEN	STWDUL	1020	1030	1040	1050	1060	1090	10100	10150	
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	20	30	40	50	60	90	100	150	V
Maximum RMS voltage	V <sub>RMS</sub>	14	21	28	35	42	63	70	105	V
Maximum DC blocking voltage	V <sub>DC</sub>	20	30	40	50	60	90	100	150	V
Maximum average forward rectified current	I <sub>F(AV)</sub>	10							Α	
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	200						А		
Maximum instantaneous forward voltage (Note 1) $I_F$ = 10 A	V <sub>F</sub>	0.55 0.70			0.	85	0.95	V		
T <sub>J</sub> =25°C		0.5			0.5			0.1		
Maximum reverse current @ Rated V <sub>R</sub> T <sub>J</sub> =100°C	I <sub>R</sub>	15			10		-		mA	
T <sub>J</sub> =125°C		- 5						7		
Voltage rate of change (Rated $V_R$ )	rate of change (Rated V <sub>R</sub> ) dV/dt 10000				V/µs					
Typical thermal resistance	$R_{ extsf{ heta}JC}$	4						°C/W		
Operating junction temperature range	TJ	- 55 to +125 - 55 to +150				°C				
Storage temperature range	T <sub>STG</sub>	- 55 to +150					°C			

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



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#### ORDERING INFORMATION PACKING CODE PART NO. PART NO. PACKING CODE PACKAGE PACKING SUFFIX SUFFIX (\*) SRAF10xx Н C0 G ITO-220AC 50 / Tube (Note 1)

Note 1: "xx" defines voltage from 20V (SRAF1020) to 150V (SRAF10150)

\*: Optional available

EXAMPLE								
EXAMPLE P/N	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION			
SRAF1060HC0G	SRAF1060	Н	CO	G	AEC-Q101 qualified Green compound			

# **RATINGS AND CHARACTERISTICS CURVES**

(T<sub>A</sub>=25°C unless otherwise noted)

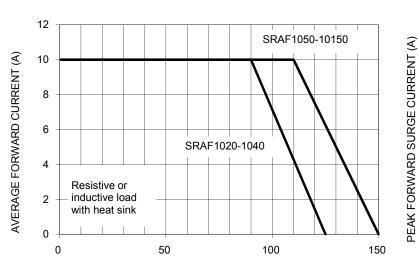
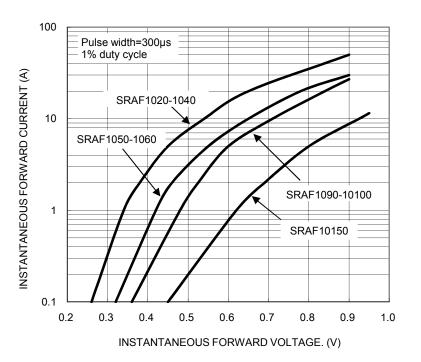


FIG.1 FORWARD CURRENT DERATING CURVE

CASE TEMPERATURE (°C)



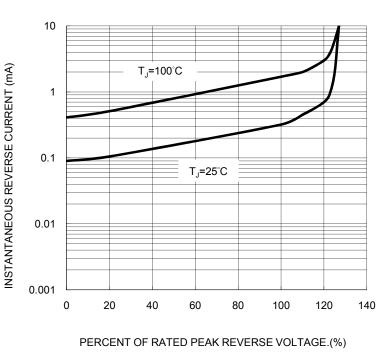


### FIG. 2 MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



NUMBER OF CYCLES AT 60 Hz





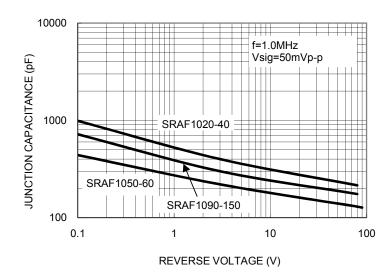
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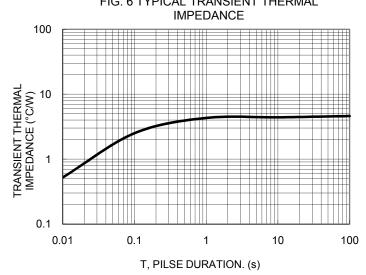


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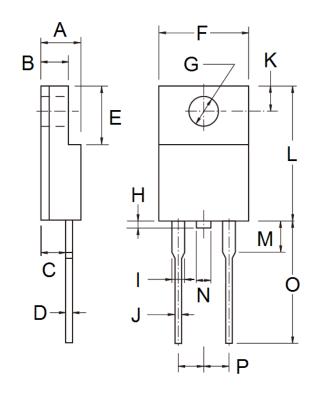












P/N

G

F

DIM.	Unit	(mm)	Unit (inch)			
DIW.	Min	Max	Min	Max		
А	4.30	4.70	0.169	0.185		
В	2.50	3.10	0.098	0.122		
С	2.30	2.90	0.091	0.114		
D	0.46	0.76	0.018	0.030		
E	6.30	6.90	0.248	0.272		
F	9.60	10.30	0.378	0.406		
G	3.00	3.40	0.118	0.134		
Н	0.00	1.60	0.000	0.063		
I	0.95	1.45	0.037	0.057		
J	0.50	0.90	0.020	0.035		
К	2.40	3.20	0.094	0.126		
L	14.80	15.50	0.583	0.610		
М	-	4.10	-	0.161		
Ν	-	1.80	-	0.071		
0	12.60	13.80	0.496	0.543		
Р	4.95	5.20	0.195	0.205		

# **MARKING DIAGRAM**



- = Specific Device Code
- = Green Compound
- YWW = Date Code
  - = Factory Code



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