

Dual Common Cathode Schottky Rectifier

FEATURES

- Low power loss, high efficiency
- 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 definition


TO-220AB


MECHANICAL DATA

Case : TO-220AB

Molding compound, UL flammability classification rating 94V-0

Base P/N with suffix "G" on packing code - halogen-free, RoHS compliant

Base P/N with prefix "H" on packing code - AEC-Q101 qualified

Terminal : Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 1A whisker test,

with prefix "H" on packing code meet JESD 201 class 2 whisker test

Polarity : As marked

Mounting torque : 5 in-lbs maximum

Weight : 1.8 gram (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERSTICS (T _A =25℃ unless otherwise noted)										
PARAMETER	SYMBOL	SR 1020	SR 1030	SR 1040	SR 1050	SR 1060	SR 1090	SR 10100	SR 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								A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	120								A
Maximum Instantaneous Forward Voltage (Note 1) IF=10A	V _F	0.55			0.70		0.85		0.95	V
Maximum reverse current @ rated VR T _A =25 ℃ T _A =100℃ T _A =125 ℃	I _R	0.5					0.1			mA
		10			5		-			
		-					2			
Voltage rate of change (Rated V _R)	dV/dt	10000								V/us
Typical thermal resistance	R _{θJC}	3								°C/W
Operating junction temperature range	T _J	- 55 to + 125			- 55 to + 150					°C
Storage temperature range	T _{STG}	- 55 to + 150								°C

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

ORDERING INFORMATION					
PART NO.	AEC-Q101 QUALIFIED	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING
SR10xx (Note 1)	Prefix "H"	C0	Suffix "G"	TO-220AB	50 / Tube

Note 1: "xx" defines voltage from 20V (SR1020) to 150V (SR10150)

EXAMPLE					
PREFERRED P/N	PART NO.	AEC-Q101 QUALIFIED	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION
SR1060 C0	SR1060		C0		
SR1060 C0G	SR1060		C0	G	Green compound
SR1060HC0	SR1060	H	C0		AEC-Q101 qualified

RATINGS AND CHARACTERISTICS CURVES

(TA=25°C unless otherwise noted)

FIG.1 FORWARD CURRENT DERATING CURVE

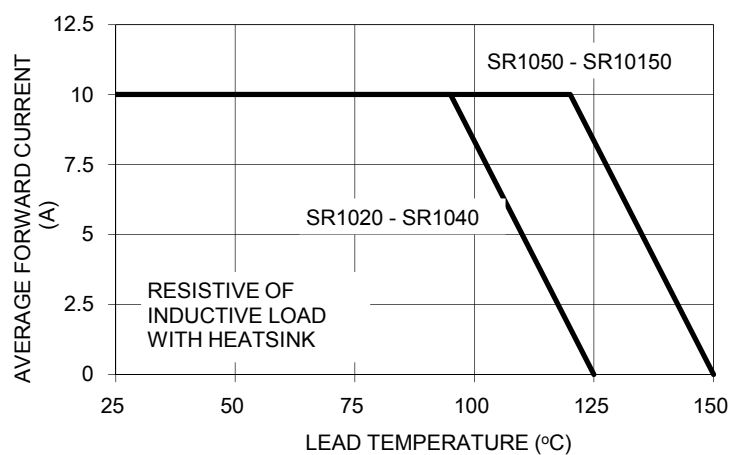


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

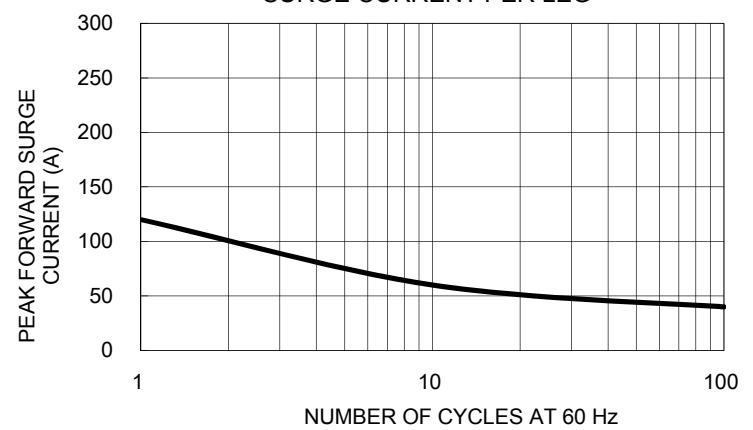


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

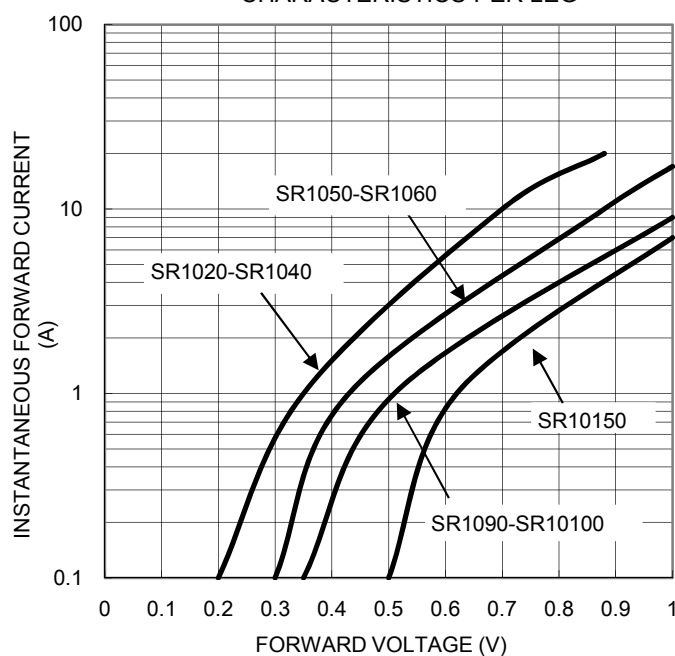


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG

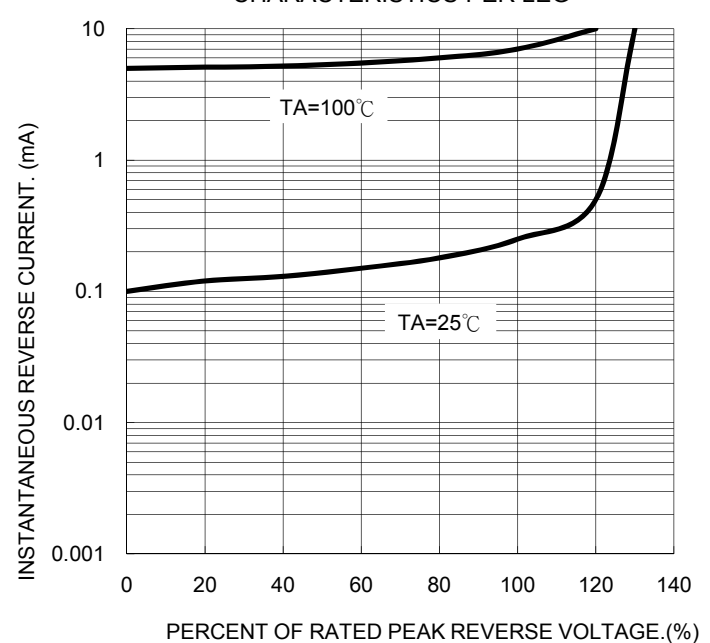


FIG. 5 TYPICAL JUNCTION CAPACITANCE PER LEG

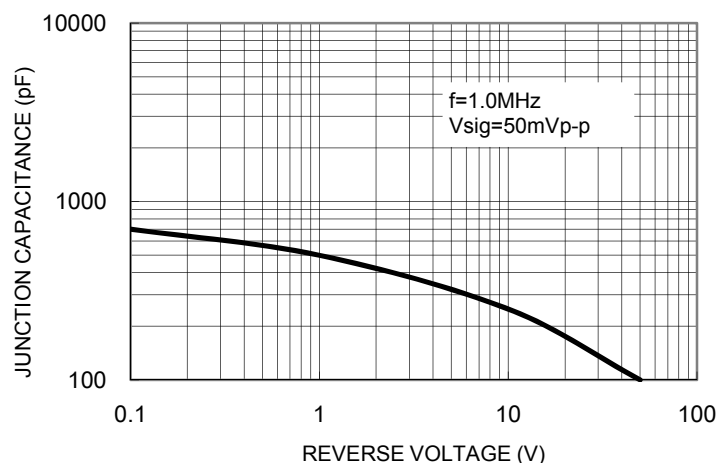
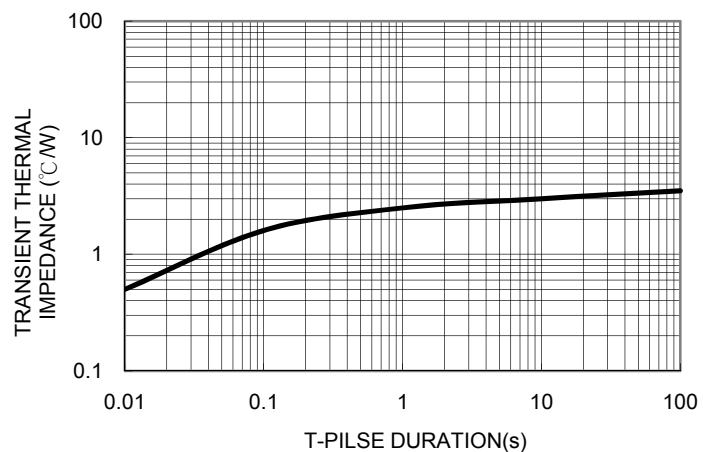
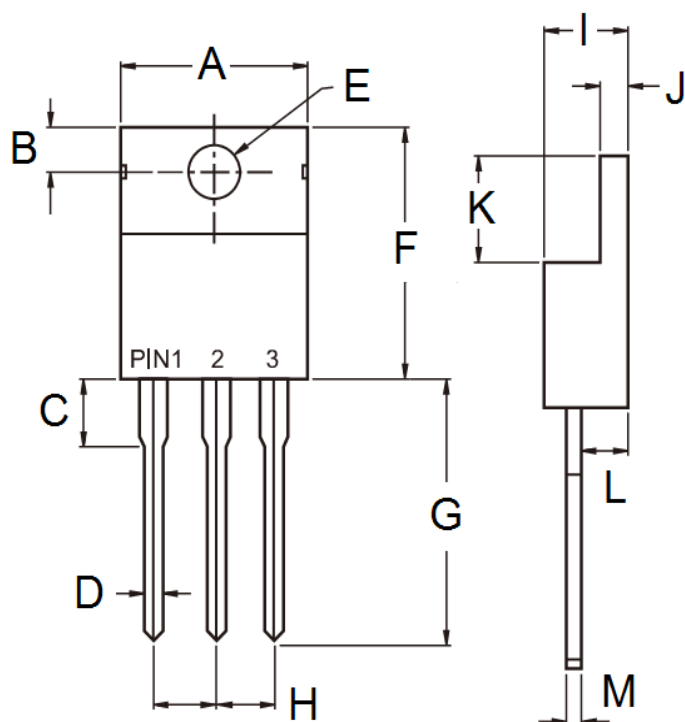


FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG



PACKAGE OUTLINE DIMENSIONS



DIM.	Unit(mm)		Unit(inch)	
	Min	Max	Min	Max
A	-	10.50	-	0.413
B	2.62	3.44	0.103	0.135
C	2.80	4.20	0.110	0.165
D	0.68	0.94	0.027	0.037
E	3.54	4.00	0.139	0.157
F	14.60	16.00	0.575	0.630
G	13.19	14.79	0.519	0.582
H	2.41	2.67	0.095	0.105
I	4.42	4.76	0.174	0.187
J	1.14	1.40	0.045	0.055
K	5.84	6.86	0.230	0.270
L	2.20	2.80	0.087	0.110
M	0.35	0.64	0.014	0.025

MARKING DIAGRAM



P/N = Marking Code
G = Green Compound
YYWW = Date Code
F = Factory Code