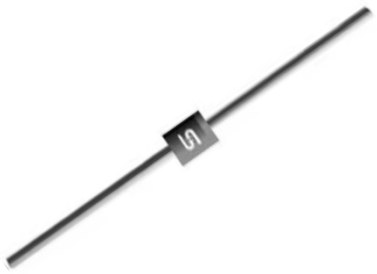
Schottky Barrier Rectifier

FEATURES

- Low forward voltage drop
- 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



DO-204AL (DO-41)

Pb-Free

RoHS COMPLIANT

MECHANICAL DATA

Case: DO-204AL (DO-41)

Molding compound, UL flammability classification rating 94V-0

Base P/N with suffix "G" on packing code - green compound (halogen-free)

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

Meet JESD 201 class 1A whisker test

Weight: 0.33g (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A=25℃ unless otherwise noted)

PARAMETER	SYMBOL	SR 002	SR 003	SR 004	SR 005	SR 006	SR 009	SR 010	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	90	100	V
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	63	70	V
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	90	100	V
Maximum average forward rectified current	$I_{F(AV)}$	0.5							A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	30							A
Maximum instantaneous forward voltage (Note 1) @ 0.5 A	V_F	0.55			0.70		0.85		V
Maximum reverse current @ rated VR T_J=25 ℃	I_R	0.5					0.1		mA
T_J=100℃		10			5		-		
T_J=125 ℃		-			-		2		
Typical junction capacitance (Note 2)	Cj	110			80		65		pF
Typical thermal resistance	$R_{\theta JA}$	50							^{O}C/W
Operating junction temperature range	T_J	- 55 to +125			- 55 to +150				^{O}C
Storage temperature range	T_{STG}	- 55 to +150							^{O}C

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

Note 2: Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

ORDERING INFORMATION				
PART NO.	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING
SR0xx (Note 1)	A0	Suffix "G"	DO-41	3,000 / Ammo box (52mm taping)
	R0		DO-41	5,000 / 13" Paper reel
	R1		DO-41	5,000 / 13" Paper reel (Reverse)
	B0		DO-41	1,000 / Bulk packing

Note 1: "xx" defines voltage from 20V (SR002) to 100V (SR010)

EXAMPLE				
PREFERRED P/N	PART NO.	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION
SR006 A0	SR006	A0		
SR006 A0G	SR006	A0	G	Green compound

RATINGS AND CHARACTERISTICS CURVES

(TA=25℃ unless otherwise noted)

FIG.1- FORWARD CURRENT DERATING CURVE

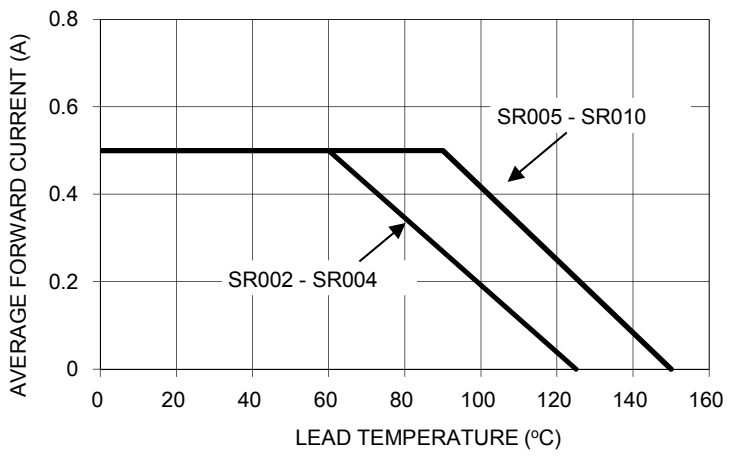


FIG. 2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

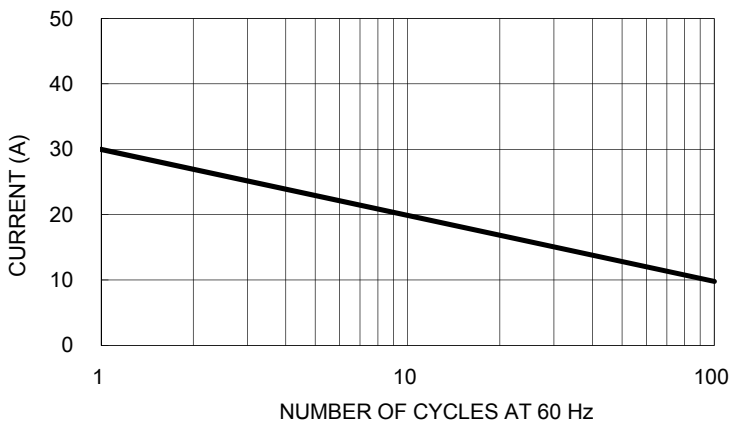


FIG. 3- TYPICAL FORWARD CHARACTERISTICS

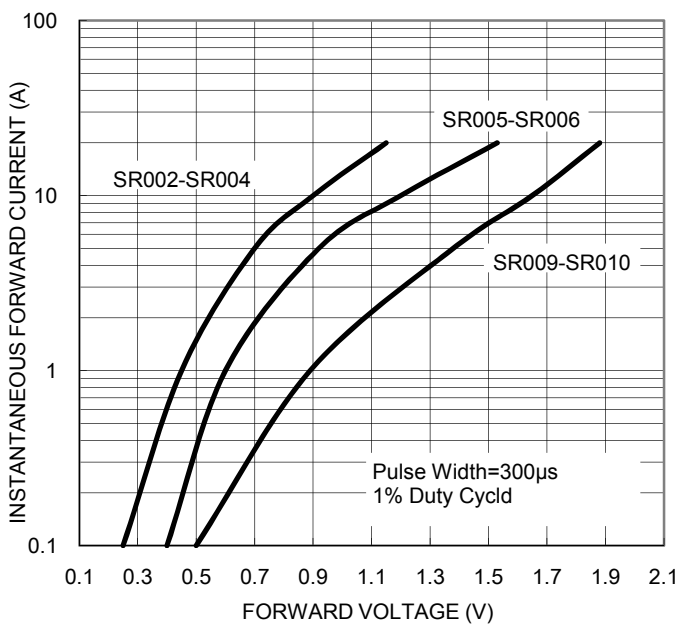


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

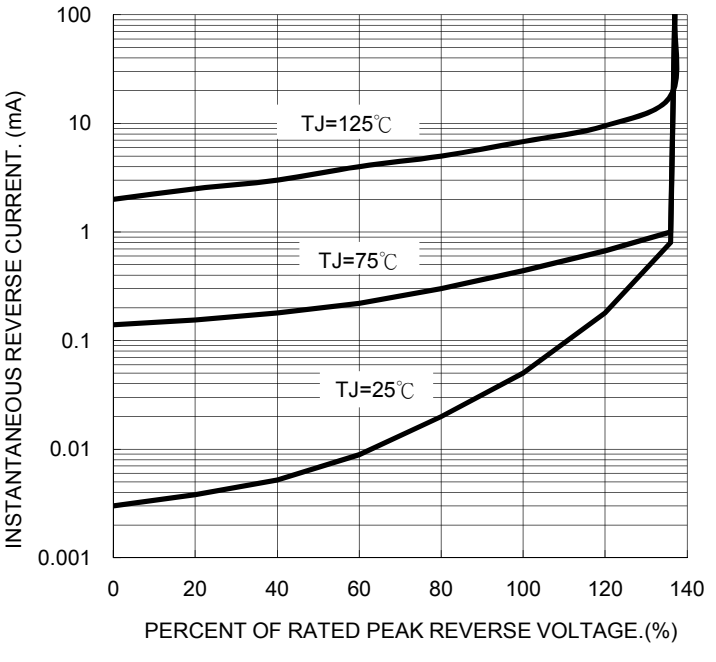


FIG. 5- TYPICAL JUNCTION CAPACITANCE

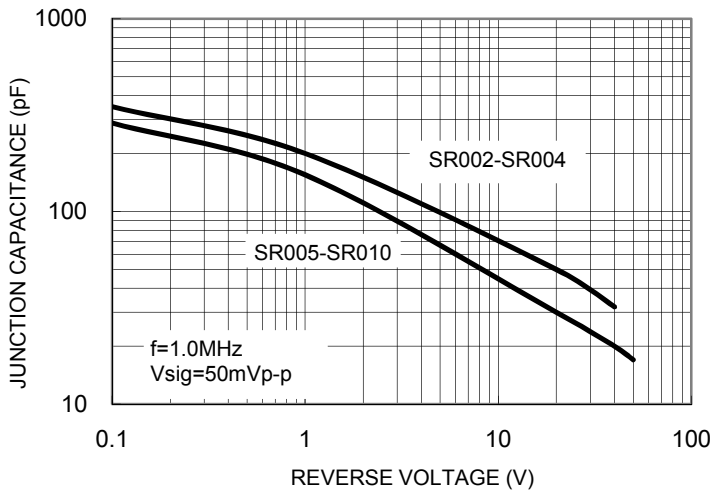
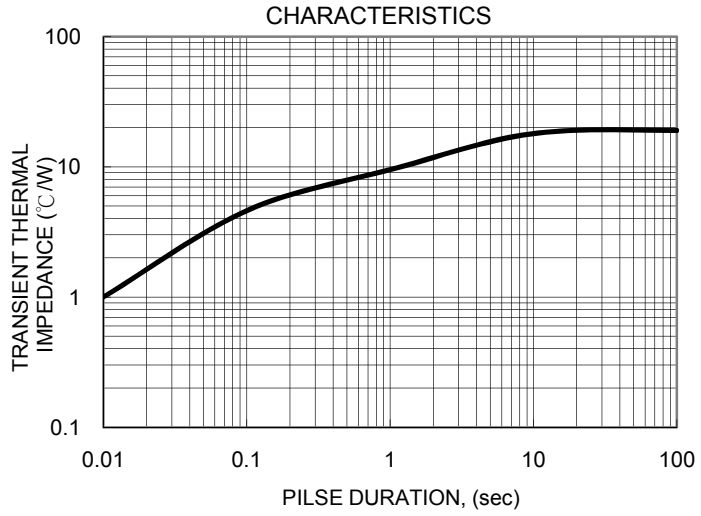
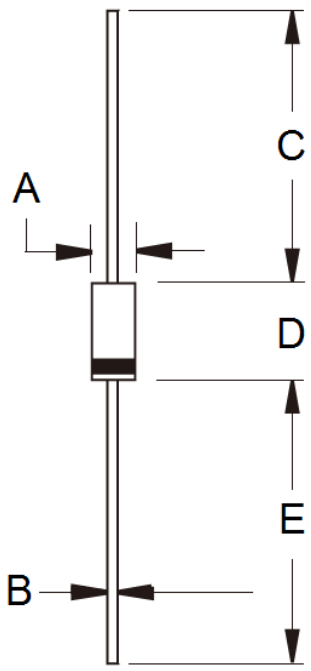


FIG. 6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS



PACKAGE OUTLINE DIMENSIONS



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	2.00	2.70	0.079	0.106
B	0.71	0.86	0.028	0.034
C	25.40	-	1.000	-
D	4.20	5.20	0.165	0.205
E	25.40	-	1.000	-

MARKING DIAGRAM

P/N = Specific Device Code
G = Green Compound
YWW = Date Code
F = Factory Code

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