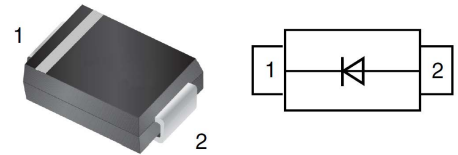


Surface Mount General Rectifier in DO-214AC/SMA

Features

- Low reverse leakage
- Built-in strain relief, ideal for automated placement
- High forward surge current capability
- For surface mounted applications
- Meet MSL level 1



Mechanical Data

- **Case:** JEDEC DO-214AC(SMA)molded plastic
Lead free; RoHS compliant
- **Molding Compound Flammability Rating:**
UL 94 V-0
- **Terminals:** High temperature soldering guaranteed:
260 °C/10 sec. at terminals

Maximum Ratings And Electrical Characteristics

Ratings at 25° C ambient temperature unless otherwise specified.
Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

Parameter	Symbol	M1	M2	M3	M4	M5	M6	M7	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	VOLTS
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	VOLTS
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	VOLTS
Maximum average forward rectified current at $T_L=110^{\circ}C$	$I_{(AV)}$	1.0							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30.0							Amps
Maximum instantaneous forward voltage at 1.0A	V_F	1.1							Volts
Maximum DC reverse current $T_A=25^{\circ}C$ at rated DC blocking voltage $T_A=100^{\circ}C$	I_R	5.0 50.0							μA
Typical junction capacitance (NOTE 1)	C_J	15.0							pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	75.0							$^{\circ}C/W$
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +125							$^{\circ}C$

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. P.C.B. mounted with 0.2x0.2" (5.0x5.0mm) copper pad areas

Typical Characteristics ($T_{amb} = 25\text{ }^{\circ}\text{C}$ unless otherwise specified)

Figure 1. Forward Current Derating Curve

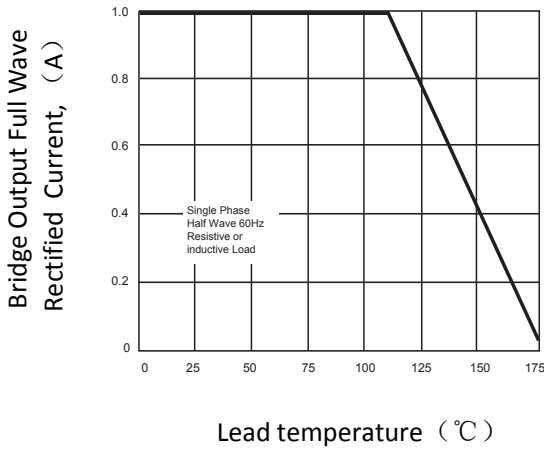


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

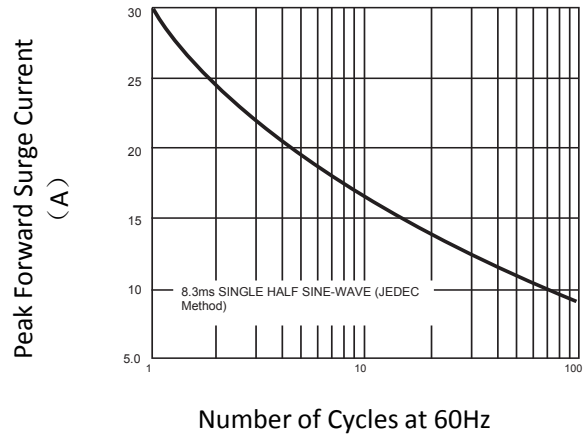


Figure 3. Typical Instantaneous Forward Characteristics

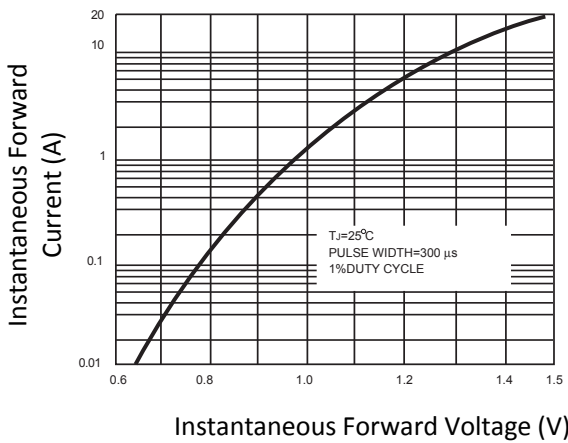


Figure 4. Typical Reverse Characteristics

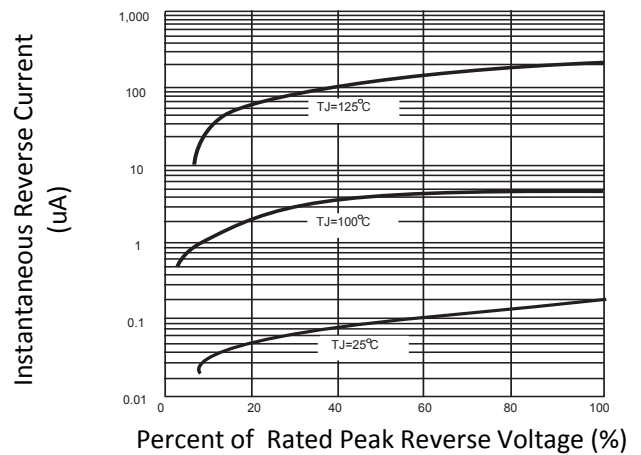


Figure 5. Typical Junction Capacitance

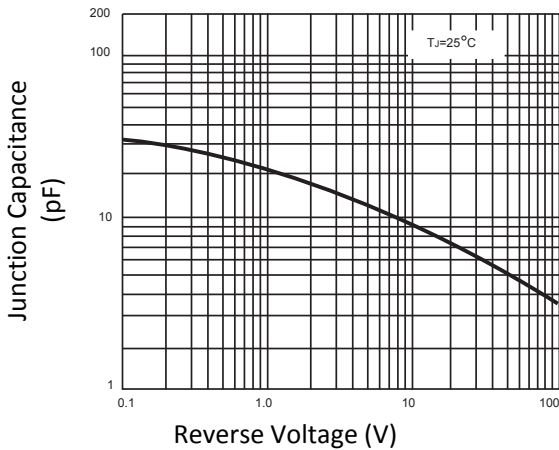
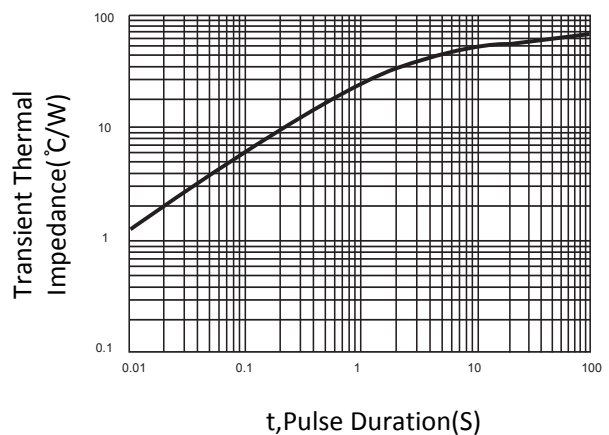
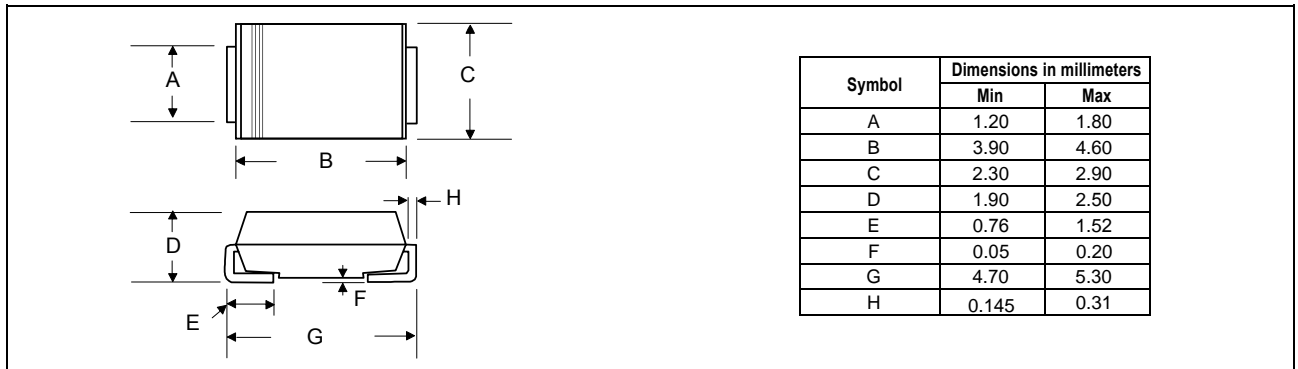


Figure 6. Typical Transient Thermal Impedance



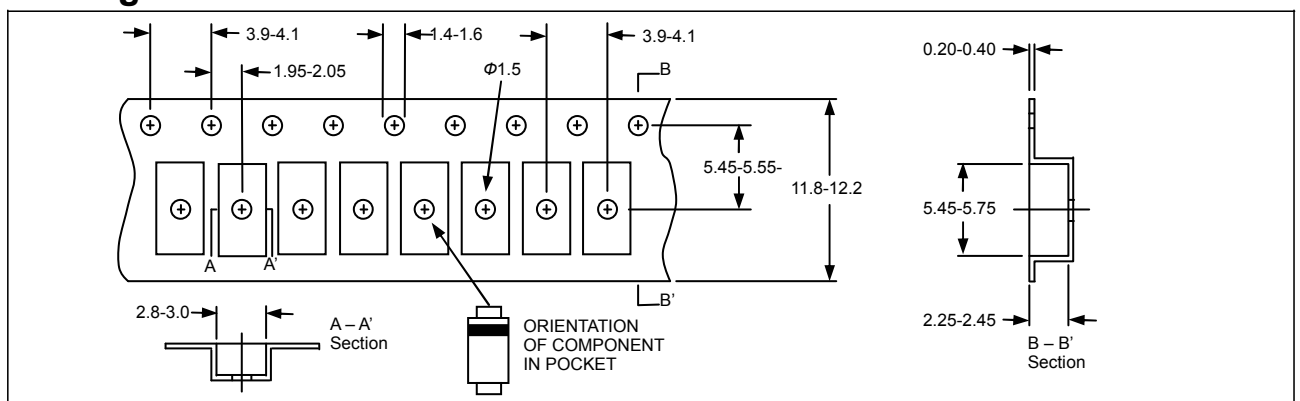
Package Dimensions



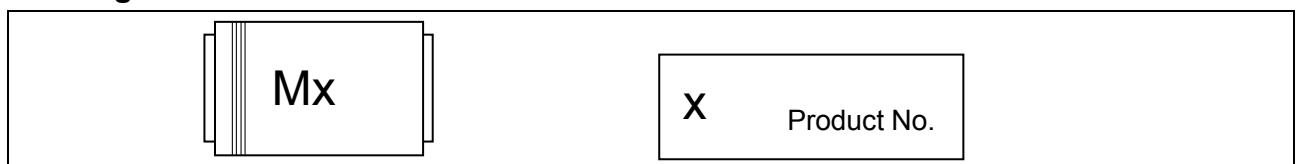
PAD Dimensions



Package Information



Marking



Ordering information

Order code	Package	Packaging option	Base quantity	Packaging specification
M1 thru M7	DO-214AC/SMA	Tape and reel	5000pcs / reel	EIA STD RS-481

Revision history

Date	Revision	Changes
1-Aug.-2025	5.1	Increase MSL level

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