

M20GAT

SURFACE MOUNT GENERAL PURPOSE SILICON RECTIFIERS

Forward Current: 1 A

Reverse Voltage: 2000 V

FEATURES

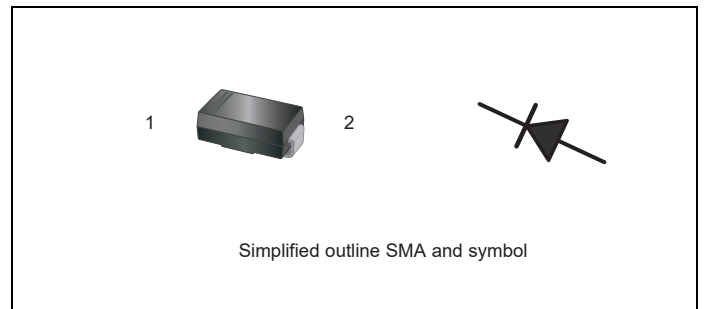
- ◆ For Surface Mounted Applications
- ◆ Low Profile Package
- ◆ Glass Passivated Chip Junction
- ◆ Easy to Pick and Place
- ◆ Lead Free in Comply with EU RoHS 2011/65/EU Directives

MECHANICAL DATA

- ◆ Case: SMA
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026
- ◆ Weight: Approx. 0.055g

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derating by 20 %.

PARAMETER	SYMBOL	M20GAT	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	2000	V
Maximum Average Forward Rectified Current at $T_C=100^\circ\text{C}$	$I_{F(AV)}$	1	A
Peak Forward Surge Current ^(Note1)	I_{FSM}	30	A
Maximum Forward Voltage at 1.0 A	V_F	1.1	V
Maximum Reverse Current at $T_J=25^\circ\text{C}$ at $T_J=125^\circ\text{C}$	I_R	5 50	μA
Typical Junction Capacitance ^(Note2)	C_J	20	pF
Typical Thermal Resistance ^(Note3)	$R_{\theta JA}$	95	$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150	$^\circ\text{C}$

- Notes:
1. Measured at 8.3 ms single half sine wave superimposed on rated load (JEDEC Method).
 2. Measured at 1MHz and applied reverse voltage of 4 V D.C.
 3. P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

Dated: 09/2017
Rev: 1.0

RATINGS AND CHARACTERISTIC CURVES

Fig.1 Forward Current Derating Curve

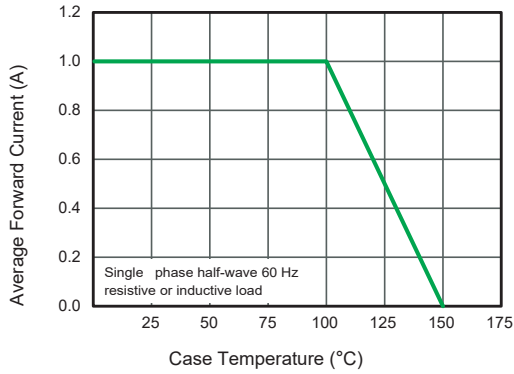


Fig.2 Typical Reverse Characteristics

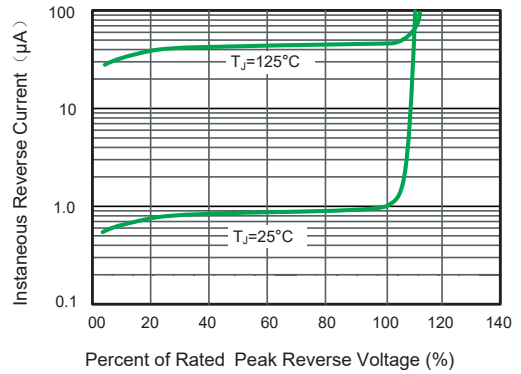


Fig.3 Typical Instantaneous Forward Characteristics

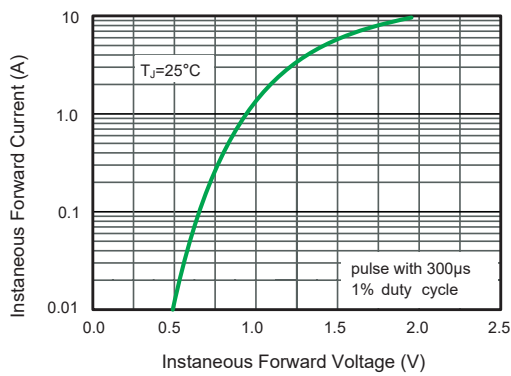


Fig.4 Typical Junction Capacitance

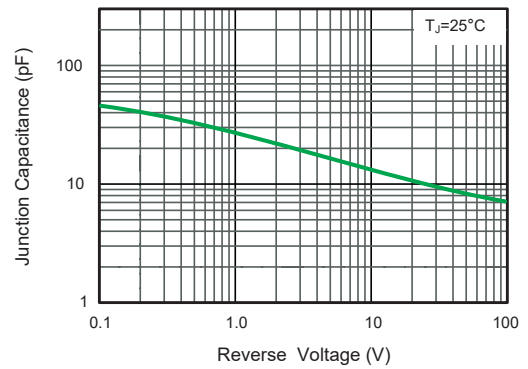
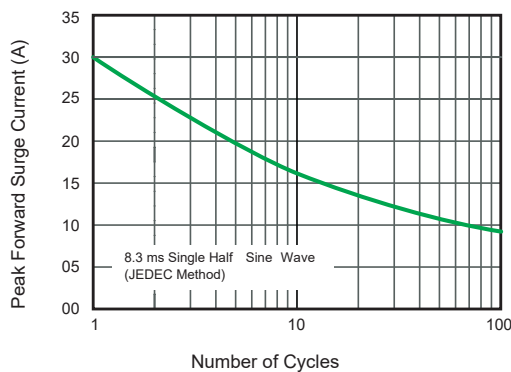


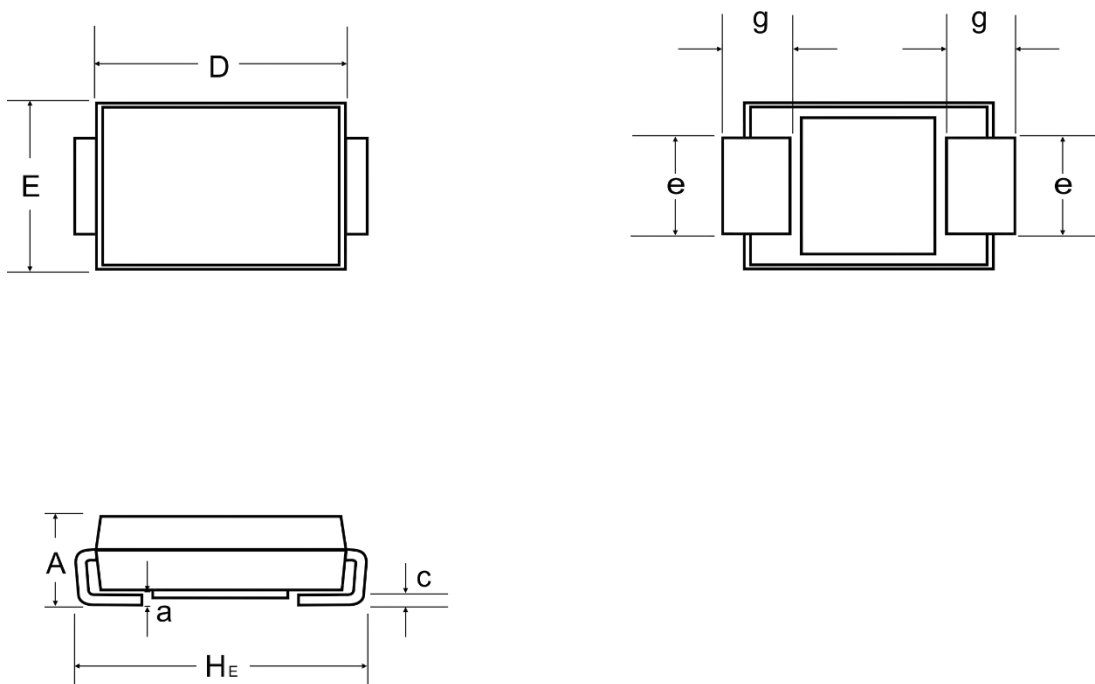
Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



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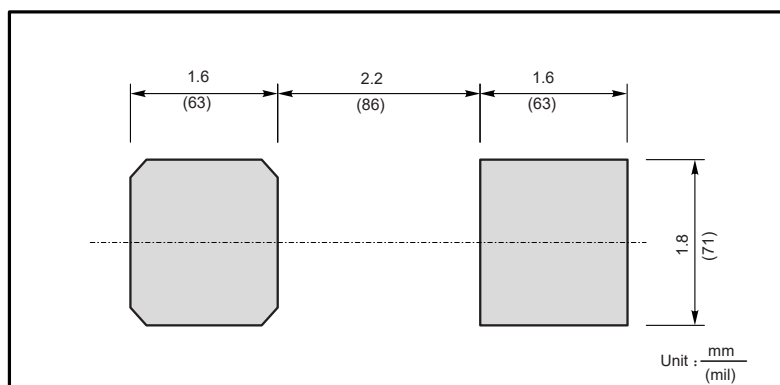
PACKAGE OUTLINE

SMA



Unit		A	D	E	H _E	C	e	g	a
mm	max	2.2	4.5	2.7	5.2	0.31	1.6	1.5	0.3
	min	1.9	4.0	2.3	4.7	0.15	1.3	0.9	

THE RECOMMENDED MOUNTING PAD SIZE



ORDERING INFORMATION

Device	Package	Shipping
M20GAT	SMA	5000PCS/Reel&Tape(13inch)

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