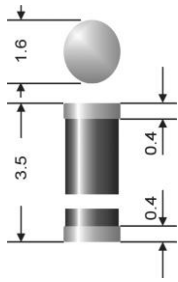


# RGA 57A ... RGA 57M



## Surface mount diode

## Ultrafast Avalanche Diodes

### RGA 57A ... RGA 57M

Forward Current: 1 A

Reverse Voltage: 50 to 1000 V

### Features

- Max. solder temperature: 260°C
- Plastic material has UL classification 94V-0
- yellow ring denotes "cathode" and "ultrafast avalanche diodes"
- second ring denotes "repetitive peak reverse voltage"

### Mechanical Data

- Plastic case: MiniMelf / SOD80 / DO-213AA
- Weight approx.: 0,04 g
- Terminals: plated terminals solderable per MIL-STD-750
- Mounting position: any
- Standard packaging: 10000, 2500 pieces per reel

- 1) Max. temperature of the terminals  $T_T = 75$  °C
- 2)  $I_F = 1$  A,  $T_J = 25$  °C
- 3)  $T_A = 25$  °C
- 4) Mounted on P.C. board with 25 mm<sup>2</sup> copper pads at each terminal

Type	Polarity color band	Repetitive peak reverse voltage $V_{RRM}$ V	Surge peak reverse voltage $V_{RSM}$ V	Maximum forward voltage $T_j = 25$ °C $I_F = 1$ A $V_F^{(2)}$ V	Maximum reverse recovery time $I_F = 0,5$ A $I_R = 1$ A $I_{RR} = 0,25$ A $t_{rr}$ ns
RGA 57A	gray	50	50	1,25	50
RGA 57B	red	100	100	1,25	50
RGA 57D	orange	200	200	1,25	50
RGA 57G	yellow	400	400	1,35	50
RGA 57J	green	600	600	1,9	75
RGA 57K	blue	800	800	1,9	75
RGA 57M	violet	1000	1000	1,9	75

Absolute Maximum Ratings		$T_A = 25$ °C, unless otherwise specified	
Symbol	Conditions	Values	Units
$I_{FAV}$	Max. averaged fwd. current, R-load, $T_T = 75$ °C <sup>1)</sup>	1	A
$I_{FRM}$	Repetitive peak forward current $f > 15$ Hz <sup>1)</sup>	8	A
$I_{FSM}$	Peak fwd. surge current 50 Hz half sinus-wave <sup>3)</sup>	20	A
$I^2t$	Rating for fusing, $t < 10$ ms <sup>3)</sup>	2	A <sup>2</sup> s
$R_{thA}$	Max. thermal resistance junction to ambient <sup>4)</sup>	150	K/W
$R_{thT}$	Max. thermal resistance junction to terminals	60	K/W
$T_j$	Operating junction temperature	- 50 ... + 175	°C
$T_s$	Storage temperature	- 50 ... + 175	°C

Characteristics		$T_A = 25$ °C, unless otherwise specified	
Symbol	Conditions	Values	Units
$I_R$	Maximum leakage current, $T_j = 25$ °C; $V_R = V_{RRM}$ $T_j = 125$ °C; $V_R = V_{RRM}$	<3 <50	μA μA
$C_j$	Typical junction capacitance (at MHz and applied reverse voltage of V)	-	pF
$Q_{rr}$	Reverse recovery charge ( $U_R = V$ ; $I_F = A$ ; $dI_F/dt = A/ms$ )	-	μC
$E_{RSM}$	Non repetitive peak reverse avalanche energy ( $I_R = 1$ mA; $T_j = 25$ °C; inductive load switched off)	20	mJ

