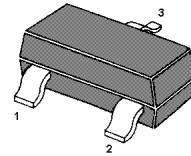
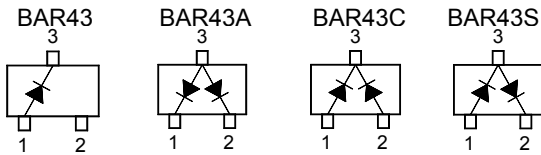


# BAR43 / A / C / S

## Schottky Barrier Diodes



SOT-23 Plastic Package

### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Maximum Repetitive Reverse Voltage	$V_{RRM}$	30	V
Average Rectified Forward Current	$I_{F(AV)}$	200	mA
Non-Repetitive Peak Forward Surge Current at ( $t = 1 \text{ s}$ )	$I_{FSM}$	750	mA
Power Dissipation	$P_{tot}$	290	mW
Operating Junction Temperature	$T_J$	125	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 55 to + 150	$^\circ\text{C}$

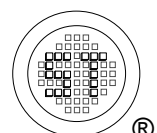
### Thermal Characteristics

Parameter	Symbol	Value	Unit
Typical Thermal Resistance - Junction to Ambient <sup>1)</sup>	$R_{\theta JA}$	345	$^\circ\text{C/W}$

<sup>1)</sup> Device mounted on FR-4 substrate PC board, 2oz copper, with minimum recommended pad layout.

### Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 100 \mu\text{A}$	$V_{(BR)R}$	30	-	V
Reverse Current at $V_R = 25 \text{ V}$	$I_R$	-	500	nA
Forward Voltage at $I_F = 2 \text{ mA}$ at $I_F = 15 \text{ mA}$ at $I_F = 100 \text{ mA}$	$V_F$	0.26 - -	0.33 0.45 0.8	V
Reverse Recovery Time at $I_F = I_R = 10 \text{ mA}$ , $I_{RR} = 1 \text{ mA}$ , $R_L = 100 \Omega$	$t_{rr}$	-	5	ns



## Electrical Characteristics Curves

Fig 1. Reverse Characteristics Curve

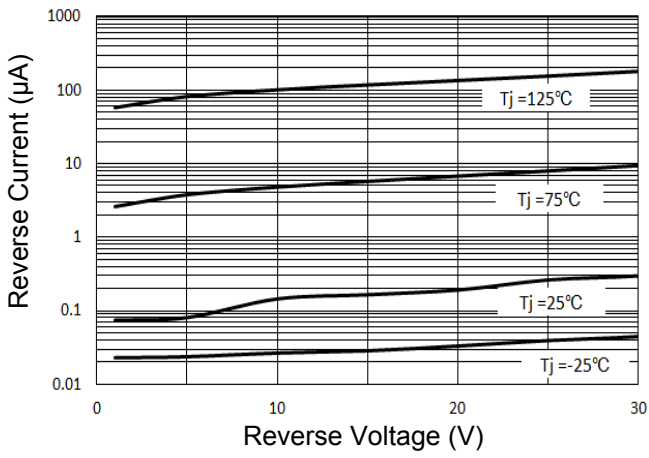


Fig 2. Forward Characteristics Curve

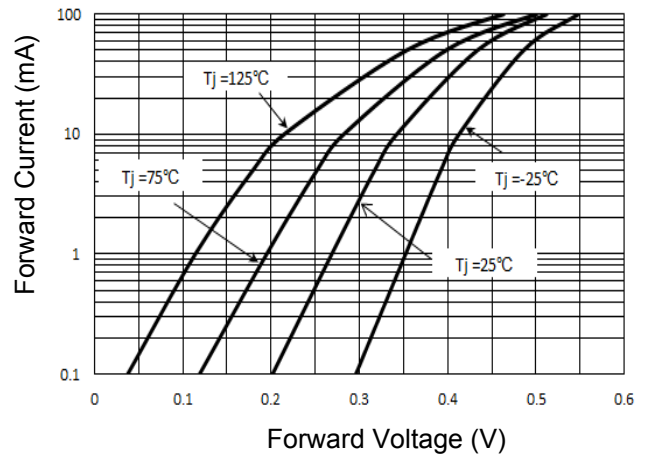


Fig 3. Junction Capacitance

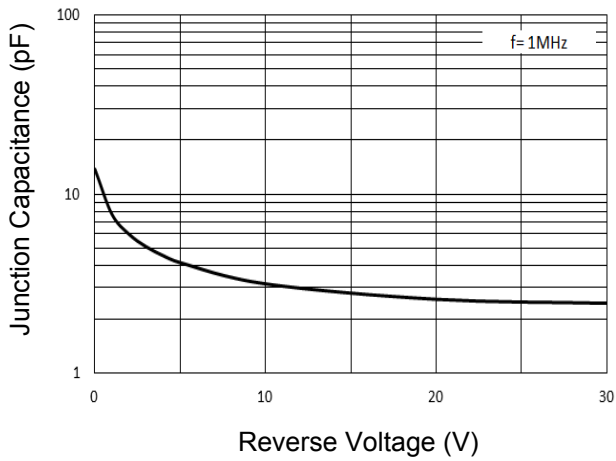
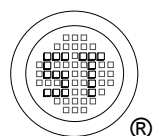
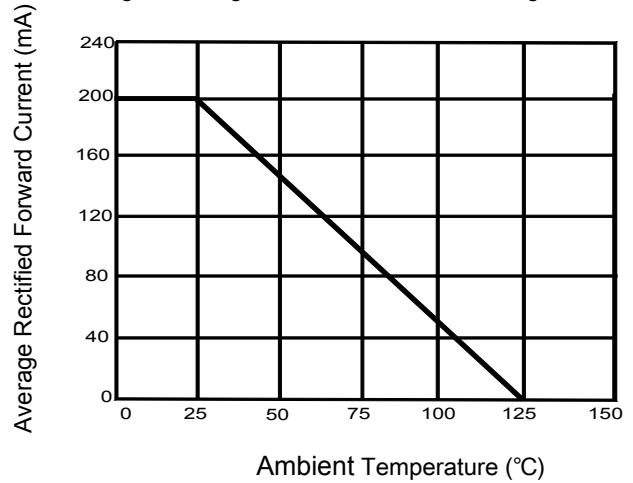


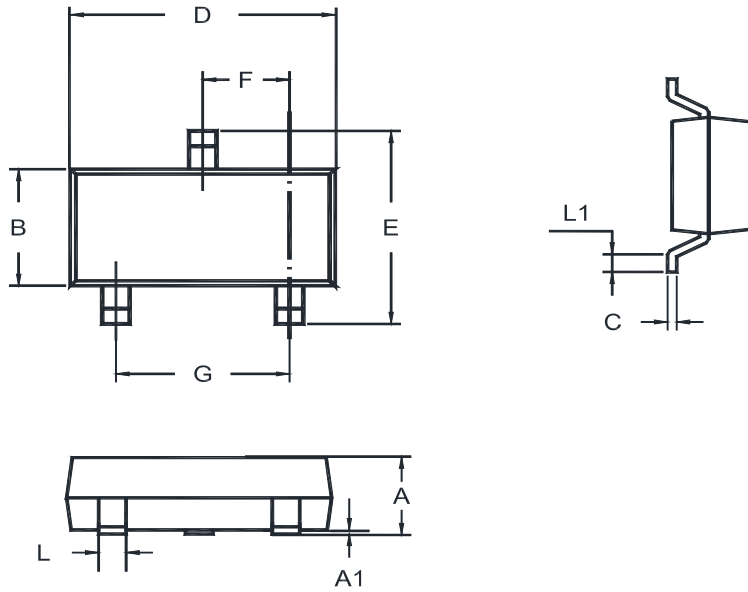
Fig 4. Average Rectified Current Derating Curve



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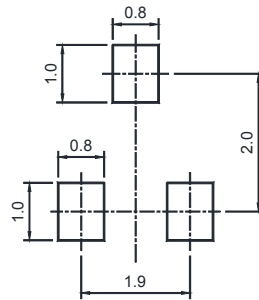
## Package Outline (Dimensions in mm)

SOT-23



Unit	A	A1	B	C	D	E	F	G	L	L1
mm	1.20	0.100	1.40	0.19	3.04	2.6	1.02	2.04	0.51	0.2
	0.89	0.013	1.20	0.08	2.80	2.2	0.89	1.78	0.37	MIN

## Recommended Soldering Footprint



## Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOT-23	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

## Marking information

" \*\* " = Part No.

Type	Marking	Type	Marking
BAR43	RD	BAR43A	RE
BAR43C	RF	BAR43S	RH

" YM " = Date Code Marking

" Y " = Year

" M " = Month

Font type: Arial

