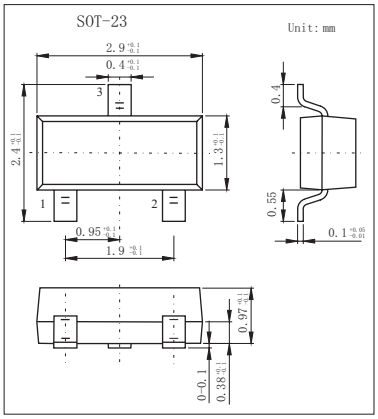
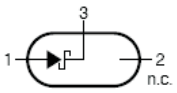
Schottky Diodes

BAR43/A/C/S(KAR43/A/C/S)

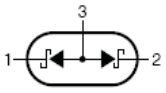


■ Features

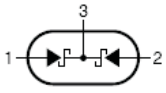
- Low forward voltage
- Fast switching



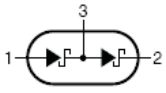
BAR43



BAR43A



BAR43C



BAR43S

■ Absolute Maximum Ratings

Parameter	Symbol	Rating	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	30	V
Continuous Forward Current	I_F	100	mA
Surge Non-repetitive Forward Current tp=10ms Sinusoidal	I_{FSM}	750	
Power Dissipation T_a=25℃ (Note1)	P_{tot}	250	mW
Thermal Resistance Junction to Ambient (Note2)	$R_{\theta JA}$	400	℃/W
Junction Temperature	T_J	125	℃
Storage Temperature range	T_{stg}	-55 to 150	

Notes:

1.For double diodes, P_{tot} is the total power dissipation of both diodes.

2.Mounted on epoxy board with recommended pad layout.

■ Electrical Characteristics (T_j = 25℃ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	V_R	I_R= 100 μA	30			V
Forward voltage *	V_{F1}	I_F= 2 mA			0.33	
	V_{F2}	I_F= 15 mA			0.45	
	V_{F3}	I_F= 100 mA			1	
Reverse voltage leakage current **	I_{R1}	V_R=25 V, T_j = 25℃			500	nA
	I_{R2}	V_R=25 V, T_j = 100℃			100	μA
Capacitance between terminals	C_T	V_R= 1 V, F = 1 MHz		7		pF
Reverse recovery time	t_{rr}	I_F=10mA, I_R=10mA, I_{rr} = 1mA, R_L=100Ω			5	ns
Detection efficiency.	η	R_L = 50KΩ, C_L = 300pF, F = 45Mhz, V_i = 2V	80			%

Pulse test: *tp=380μs,δ<2%

**tp=5ms,δ<2%

■ Marking

Type	BAR43	BAR43A	BAR43C	BAR43S
Marking	D95	DB1	DB2	DA5

Schottky Diodes

BAR43/A/C/S(KAR43/A/C/S)

■ Typical Characterisitics

Fig. 1-1: Forward voltage drop versus forward current (typical values, low level).

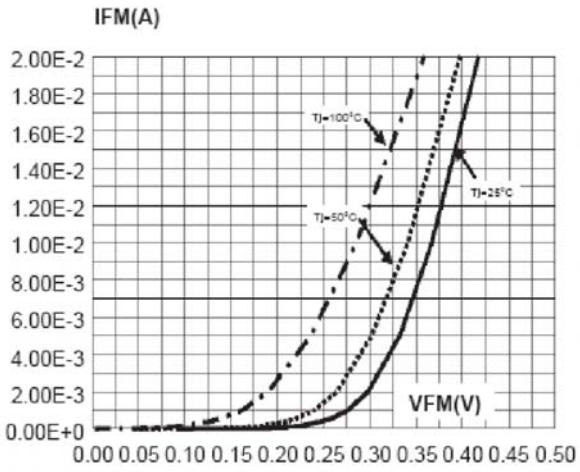


Fig. 1-2: Forward voltage drop versus forward current (typical values, high level).

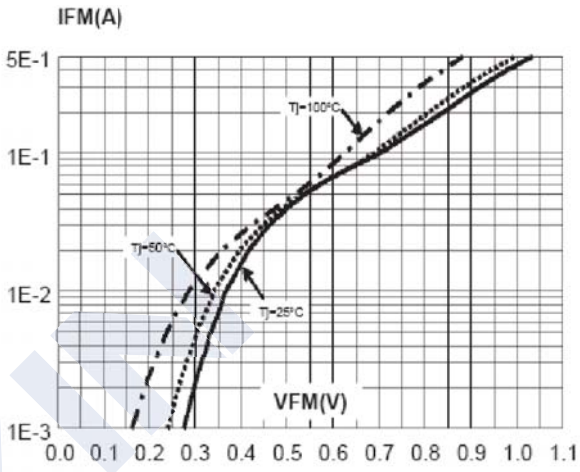


Fig. 2: Reverse leakage current versus reverse voltage applied (typical values).

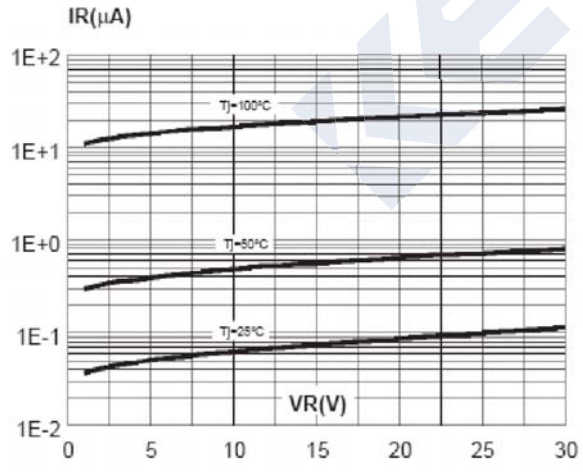
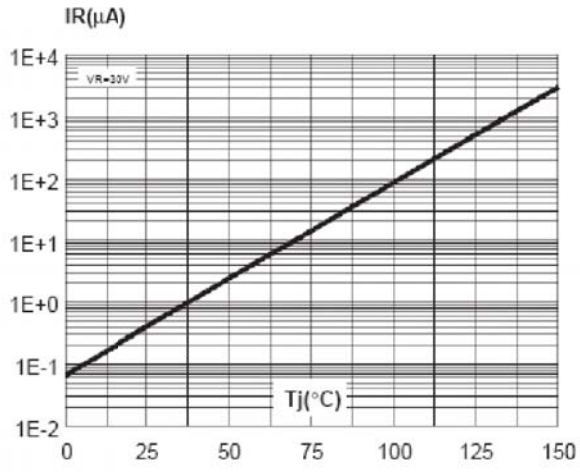


Fig. 3: Reverse leakage current versus junction temperature.



Schottky Diodes

BAR43/A/C/S(KAR43/A/C/S)

■ Typical Characterisitics

Fig. 4: Junction capacitance versus reverse voltage applied (typical values).

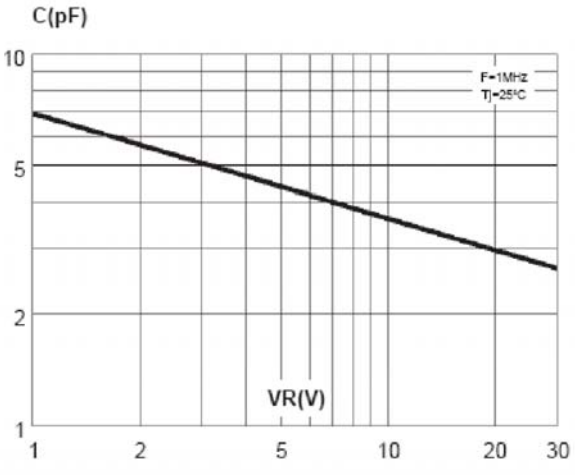


Fig. 5: Relative variation of thermal impedance junction to ambient versus pulse duration (epoxy FR4 with recommended pad layout, e(Cu)=35µm).

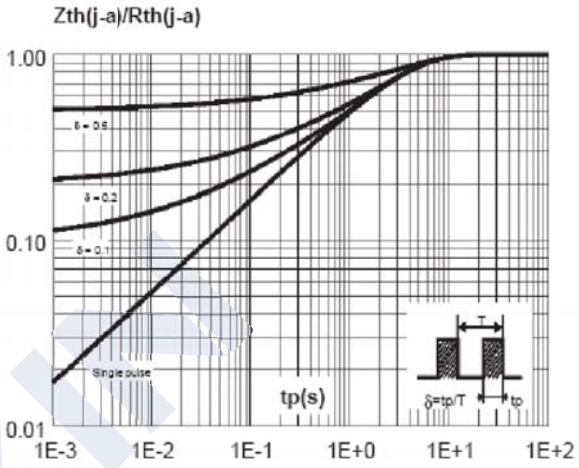


Fig. 6: Thermal resistance junction to ambient versus copper surface under each lead (Epoxy printed circuit board FR4, copper thickness: 35µm).