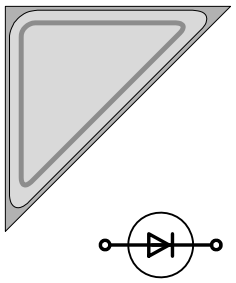
preliminary

Diode Chip

V_{RR} = 50 V
I_R = 1 nA
V_F = 0.69 V

Type	V_{RRM} [V]	V_{RSM} [V]	Die Size [mm]			Package
DFP 32	50	60	8.0	8.0	11.3	sawn on foil ☐ unsawn wafer ☑ in waffle pack ☐



Mechanical Parameters

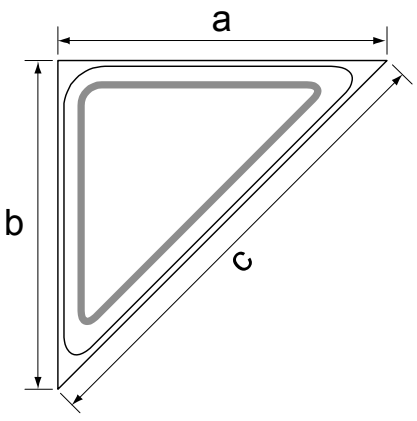
Area active			29.64	mm^2
Area total			32.0	mm^2
Wafer size Ø			150	mm
Thickness			140-150	µm
Material	Si FZ	Orientation	<111>	
Max. possible chips per wafer			452	
Passivation front side			Oxide	
Metallization top side			non metalised wafer	
top side			non metalised wafer	
Metallization backside			non metalised wafer	
Recom. wire bonds (Al)	n/a			
	n/a			
Reject Ink Dot Size	n/a			
Recom. Storage Environment	in org. container, in dry nitrogen		< 6	month
	T_{stg}		-40... 40	°C

Features:

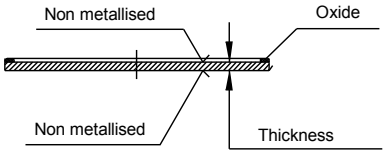
- planar technology
- anode top
- oxide passivation
- rectifier diode
- negligible leakage contribution
- low forward voltage drop
- ruggedness to outer space radiation

Applications:

- to protect solar cell panel
- overvoltage protection



A [mm]	B [mm]	C [mm]
8.0	8.0	11.31



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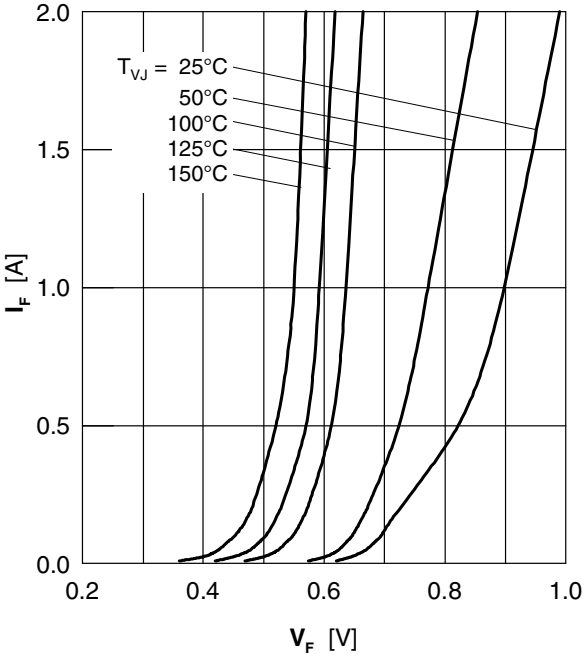
Symbol	Conditions		Ratings min	typ.	max.	
I_R	$V_D = V_R = V_{RRM}$	T_{VJ} = 25°C			0.001	µA
		T_{VJ} = 150°C			2	µA
V_F	I_F = 0.1 A	T_{VJ} = 25 °C			0.69	V
		T_{VJ} = 150 °C			0.46	V
t_{rr}	V_R = 50 V	$-di_F/dt$ = 10 A/µs		0.65		µs
I_{RM}	I_F = 2 A	T_{VJ} = 25°C		7		A
t_{rr}	V_R = 50 V	$-di_F/dt$ = 100 A/µs		0.25		µs
I_{RM}	I_F = 2 A	T_{VJ} = 25°C		22		A

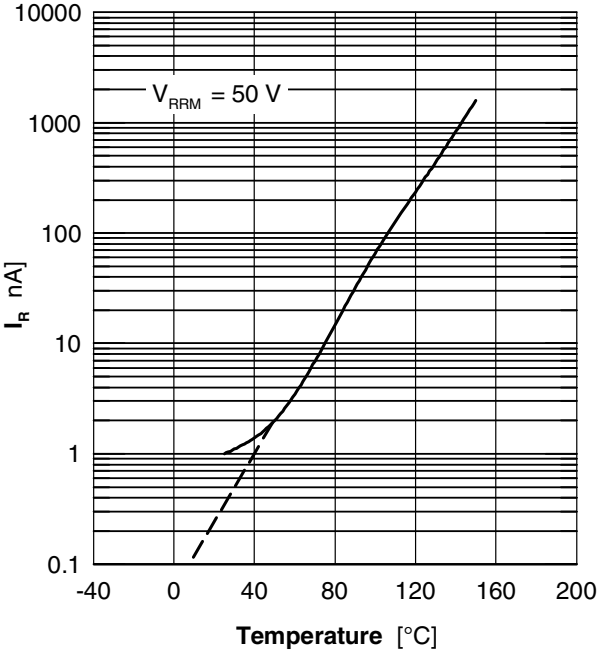
* Data according to assembled Chip

Data according to IEC 60747

Typical characteristics of a triangular diode



Forward current Vs forward voltage drop



Reverse leakage current Vs temperature