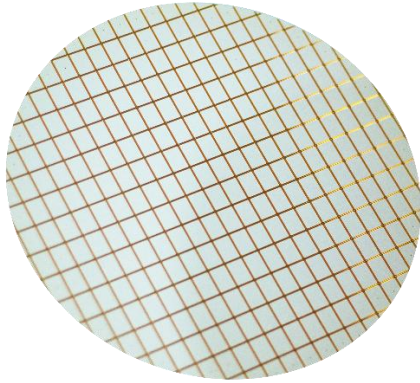


TARGET DATASHEET

SID0250C230d26

d26 QLLC Diode, 9.6 mm x 12.4 mm



$V_{RRM} = 1200\text{ V}$

$I_F = 250\text{ A}$

- d26 QLLC diode design
- positive temperature coefficient
- easy paralleling

Maximum ratings¹

PARAMETER	SYMBOL	CONDITIONS	MIN	MAX	UNIT
Repetitive peak reverse voltage	V_{RRM}	$T_{vj} \geq 25\text{ °C}$		2300	V
Continuous forward current	I_F	$T_{vj} < 175\text{ °C}$		250	A
Maximum repetitive forward current	I_{FRM}	t_p limited by $T_{vj\text{ max}}$ $T_{vj\text{ max}}$		500	A
Junction temperature	T_{vj}		-40	175	°C
Junction operating temperature	$T_{vj(op)}$		-40	175	°C

¹ Maximum rated values indicate limits beyond which damage to the device may occur per IEC 60747



Diode²

PARAMETER	SYMBOL	CONDITIONS		MIN	TYP	MAX	UNIT
Cathode-Anode breakdown voltage -	$V_{(BR)}$	$I_R = 0.25\text{mA}$, $T_{vj} = 25^\circ\text{C}$		2300			V
Forward voltage drop	V_F	$I_F = 250\text{ A}$	$T_{vj} = 25^\circ\text{C}$		2.2		V
			$T_{vj} = 125^\circ\text{C}$				V
			$T_{vj} = 175^\circ\text{C}$		2.7		V
Reverse leakage current	I_R	$V_R = 2300\text{ V}$	$T_{vj} = 25^\circ\text{C}$			1	μA
Peak reverse recovery current	I_{RM}	$V_R = 1500\text{ V}$, $I_F = 250\text{ A}$, $di/dt = 4000\text{ A}/\mu\text{s}$ (175°C), $R_G = 1.5\ \Omega$, $V_{GE} = \pm 15\text{ V}$, IGBT: SIS0250C230i26	$T_{vj} = 25^\circ\text{C}$		300		A
			$T_{vj} = 125^\circ\text{C}$				A
			$T_{vj} = 175^\circ\text{C}$		345		A
Recovery charge	Q_{rr}		$T_{vj} = 25^\circ\text{C}$		85		μC
			$T_{vj} = 125^\circ\text{C}$				μC
			$T_{vj} = 175^\circ\text{C}$		109		μC
Reverse recovery time	t_{rr}		$T_{vj} = 25^\circ\text{C}$		900		ns
			$T_{vj} = 125^\circ\text{C}$				ns
			$T_{vj} = 175^\circ\text{C}$		1200		ns
Reverse recovery energy	E_{rec}		$T_{vj} = 25^\circ\text{C}$		90		mJ
			$T_{vj} = 125^\circ\text{C}$				mJ
			$T_{vj} = 175^\circ\text{C}$		115		mJ

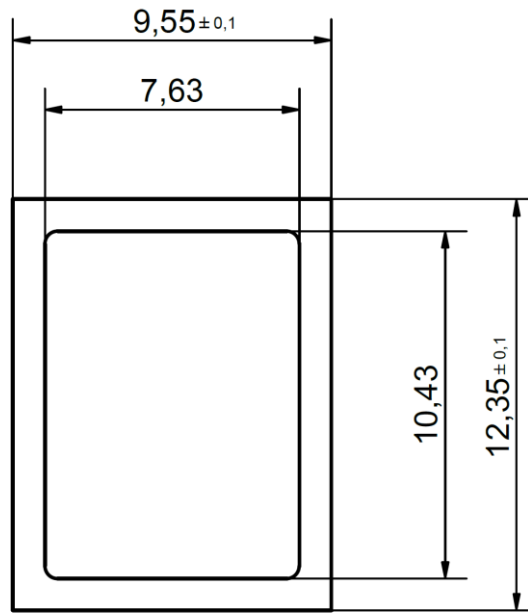
Mechanical properties

PARAMETER		UNIT
Die size	$(9.55 \pm 0.01) \times (12.35 \pm 0.01)$	mm^2
Thickness	230 ± 5	μm
Wafer diameter	200	mm
Maximum chips per wafer	202	pcs
Frontside passivation	Polyimide	
Frontside metal	AlSiCu, 5000nm	
Backside metal	Al Ni Ag System, 1100nm	

² Characteristic values according to IEC 60747-2



Chip drawing



This is an electrostatic sensitive device.