VSP-MIKRON

RoHS

V_{RRM}=2500V

I_F =50A

Diode-Die

KD50250F

Die Size-7.54 x 7.54 мм.

Passivation : Silicon Oxide

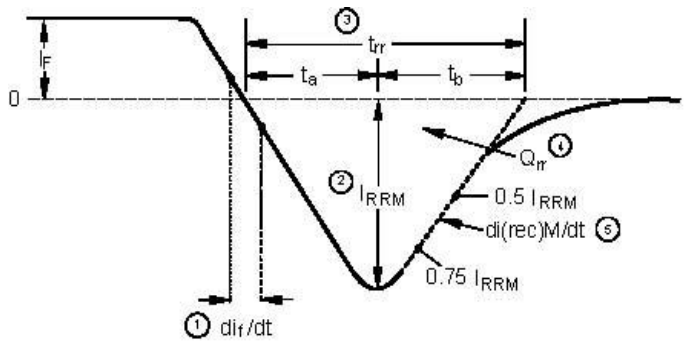
Maximum rated values

Parameter	Symbol	Unit	min	max
Repetitive peak reverse voltage	V_{RRM}	V	-	2500
Continuous forward current	I_F	A	-	50
Repetitive peak forward current *	I_{FRM}	A	-	100
Junction temperature	T_{vj}	˚C	-	150

*Limited by $T_{vj\ max}$

Diode Characteristics values

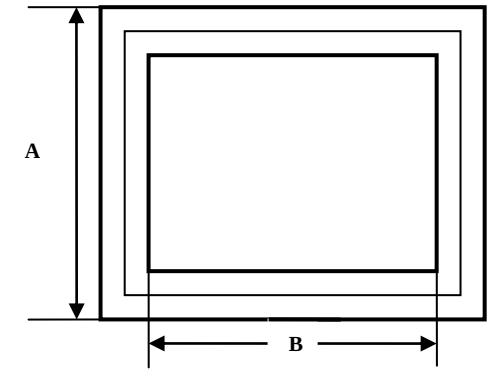
Parameter	Symbol	Conditions	min	typ	max	Unit
Continuous forward voltage	V_F	I_F=50A,T_{vj}= 25˚C		2.4	**2.45**	V
Continuous reverse current	I_R	V_R=1200V T_{vj}= 25˚C		4	100	uA
		T_{vj}= 125˚C		2.0	**2.5**	mA
Peak reverse recovery current	I_{RRM}	I_F=50A, V_R=700V, dI_F/dt=200A/uS, T_{vj}= 25˚C		tbd		A
Recovered charge	Q_{rr}			tbd		µC
Reverse Recovery Time	t_{rr}			tbd		nS
Reverse Recovery Time	t_{rr}	I_F=1A, V_R=30V, dI_F/dt=200A/uS.		100	150	nS



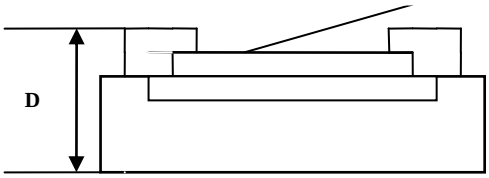
1. di_f/dt - Rate of change of current through zero crossing
2. I_{RRM} - Peak reverse recovery current
3. trr - Reverse recovery time measured from zero crossing point of negative going I_F to point where a line passing through 0.75 I_{RRM} and 0.50 I_{RRM} extrapolated to zero current
4. Q_{rr} - Area under curve defined by t_{rr} and I_{RRM}

$$Q_{rr} = \frac{t_{rr} X I_{RRM}}{2}$$

5. $di_{(rec)M}/dt$ - Peak rate of change of current during t_b portion of t_{rr}



Top Metal



DIM	ITEM	µm
A_X A_y	Die Size	7540 7540
D	Thickness	560max.
Scribe line Width		60

Top metal: ***Al*** – for Wire Bonding.

Backside metal: ***Ti-Ni-Ag –*** for Soldering.

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