

Fast Recovery Epitaxial Diodes FRED Chips

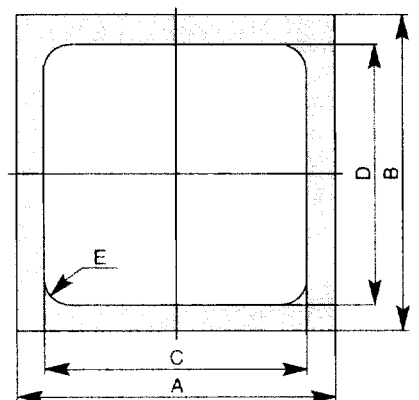
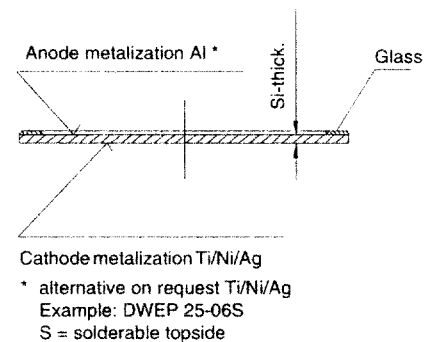
Type	V_{RRM} min V	I_{FM} $T_J = 25^\circ\text{C}$ $V_{FM} = 0.8 \cdot V_{RRM}$ μA	I_{FM} $T_J = 25^\circ\text{C}$ $V_{FM} = V_{RRM}$ mA	I_{FM} $T_J = 125^\circ\text{C}$ $V_{FM} = 0.8 \cdot V_{RRM}$ mA	I_{FM}^{max} ϕ rectangular $d = 0.5$ A	T_c $^\circ\text{C}$	$R_{th(j-c)}$ (TO-247) KW
DWEP 27 - 02	200	100	0.2	5	54	85	1.0
DWEP 37 - 02		150	0.35	11	91	70	0.8
DWEP 77 - 02		500	0.65	20	244	70	0.26
DWEP 8 - 06	600	12	0.025	1.5	TBD	-	-
DWEP 12 - 06		10	0.02	1.5	8	115	2.5
DWEP 15 - 06		25	0.05	3	12	100	2.0
DWEP 23 - 06		50	0.1	7	30	85	1.0
DWEP 25 - 06		50	0.1	7	30	85	1.0
DWEP 35 - 06		100	0.2	14	60	70	0.8
DWEP 55 - 06		500	3.0	17	80	70	0.4
DWEP 75 - 06		750	5.0	20	162	70	0.26
DWEP 3 - 10	1000	75	0.5	2	TBD	-	-
DWEP 10 - 10		150	1.0	4	12	100	1.6
DWEP 18 - 10		250	1.5	7	30	85	0.9
DWEP 20 - 10		250	1.5	7	30	85	0.9
DWEP 30 - 10		500	3.0	14	60	60	0.7
DWEP 50 - 10		500	3.0	17	82	70	0.4
DWEP 70 - 10		750	5.0	20	129	70	0.26
DWEP 6 - 12	1200	100	0.15	2	TBD	-	-
DWEP 9 - 12		150	1.0	4	12	100	1.6
DWEP 17 - 12		250	1.5	7	30	85	0.9
DWEP 19 - 12		250	1.5	7	30	85	0.9
DWEP 29 - 12		500	3.0	14	60	60	0.7
DWEP 49 - 12		500	2.1	17	77	70	0.4
DWEP 69 - 12		750	3.4	22	123	70	0.26

① Specified values refer to chip only, assembly parts are not included.

② Specified values can only be obtained in void-free assemblies according to our assembly recommendations.

Dimensions in mm

Type	Si-thick. mm	A mm	B mm	C mm	D mm	E mm
DWEP 27 - 02	0.390	4.45	4.45	3.45	3.45	0.200
DWEP 37 - 02		6.20	6.20	5.20	5.20	0.200
DWEP 77 - 02		8.31	7.22	7.31	6.22	0.200
DWEP 8 - 06	0.415	3.60	1.80	2.70	0.30	0.250
DWEP 12 - 06		2.40	2.40	1.46	1.46	0.230
DWEP 15 - 06		3.25	3.25	2.25	2.25	0.200
DWEP 23 - 06		5.50	3.50	4.50	2.50	
DWEP 25 - 06		4.45	4.45	3.45	3.45	
DWEP 35 - 06		6.20	6.20	5.20	5.20	
DWEP 55 - 06		8.65	4.95	7.65	3.95	
DWEP 75 - 06		8.91	7.22	7.91	6.22	
DWEP 3 - 10	0.455	3.60	1.80	2.70	0.90	0.250
DWEP 10 - 10		3.25	3.25	2.25	2.25	0.200
DWEP 18 - 10		5.50	3.50	4.50	2.50	
DWEP 20 - 10		4.45	4.45	3.45	3.45	
DWEP 30 - 10		6.20	6.20	5.20	5.20	
DWEP 50 - 10		8.65	4.95	7.65	3.95	
DWEP 70 - 10		8.91	7.22	7.91	6.22	
DWEP 6 - 12	0.475	2.40	2.40	1.46	1.46	0.230
DWEP 9 - 12		3.25	3.25	2.25	2.25	0.200
DWEP 17 - 12		5.50	3.50	4.50	2.50	
DWEP 19 - 12		4.45	4.45	3.45	3.45	
DWEP 29 - 12		6.20	6.20	5.20	5.20	
DWEP 49 - 12		8.65	4.95	7.65	3.95	
DWEP 69 - 12		8.91	7.22	7.91	6.22	
Tolerance	± 0.05	-0.1	-0.1	+0.1	+0.1	+0.1



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	V_f ① $T_J = 25^\circ\text{C}$		I_{FM} ② $T_J = 25^\circ\text{C}, V_R = 100\text{V}$		I_F ②	$-dI/dt$	t_r ②	$-dI/dt$	Chips per Water 100 mm \varnothing
	V	A	typ. A	max. A					
	1.15	32	2	4	50	100	TBD	-	320
	1.10	100							
	1.20	125							
	1.7	8	3.5	5	12	100	TBD	-	1026
	1.50	8							
	1.70	16							
	1.55	30							
	1.60	43							
	1.80	70							
	1.60	75							
	1.55	75							
	2.70	6	5	7	12	100	TBD	-	1026
	2.70	12							
	2.45	30							
	2.40	36							
	2.30	60							
	2.10	50							
	2.00	75							
	2.60	5							
	2.60	12							
	2.60	30							
	2.55	30							
	2.35	60							
	2.35	60							
	2.00	75							
	2.60	5	5	10	10	100	TBD	-	1184
	2.60	12							
	2.60	30							
	2.55	30							
	2.35	60							
	2.35	60							
	2.00	75							

① Can only be tested in assembled status

② $I_F = 1\text{ A}$, $V_R = 30\text{ V}$, $T_J = 25^\circ\text{C}$

Dimensions in inch

Type	Si-thick. inch	A inch	B inch	C inch	D inch	E inch
DWEP 27 - 02	0.015	0.175	0.175	0.136	0.136	0.008
DWEP 55 - 06		0.244	0.244	0.205	0.205	
DWEP 75 - 06		0.351	0.284	0.311	0.245	
DWEP 8 - 06	0.016	0.142	0.071	0.106	0.035	0.010
DWEP 12 - 06		0.094	0.094	0.057	0.057	0.009
DWEP 15 - 06		0.128	0.128	0.089	0.089	0.008
DWEP 23 - 06		0.217	0.138	0.177	0.098	
DWEP 25 - 06		0.175	0.175	0.136	0.136	
DWEP 35 - 06		0.244	0.244	0.205	0.205	
DWEP 55 - 06		0.341	0.195	0.301	0.301	
DWEP 75 - 06		0.351	0.284	0.311	0.245	
DWEP 3 - 10	0.018	0.142	0.071	0.106	0.035	0.010
DWEP 10 - 10		0.128	0.128	0.089	0.089	0.008
DWEP 18 - 10		0.217	0.138	0.177	0.098	
DWEP 20 - 10		0.175	0.175	0.136	0.136	
DWEP 30 - 10		0.244	0.244	0.205	0.205	
DWEP 50 - 10		0.341	0.195	0.301	0.301	
DWEP 70 - 10		0.351	0.284	0.311	0.245	
DWEP 6 - 12		0.019	0.014	0.094	0.057	0.057
DWEP 9 - 12	0.128		0.128	0.089	0.089	0.008
DWEP 17 - 12	0.217		0.138	0.177	0.098	
DWEP 19 - 12	0.175		0.175	0.136	0.136	
DWEP 29 - 12	0.244		0.244	0.205	0.205	
DWEP 49 - 12	0.341		0.195	0.301	0.301	
DWEP 69 - 12	0.351		0.284	0.311	0.245	
Tolerance	± 0.002		-0.004	-0.004	+0.004	+0.004

IXYS reserves the right to change limits, test conditions and dimensions.