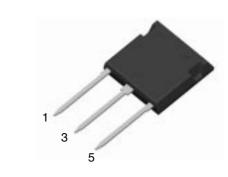


Dual HiPerFRED™ Epitaxial Diode

in ISOPLUS i4-PAC™

DSEE 55-24N1F

 $V_{RRM} = 2400 V$ $I_{F(AV)M} = 55 A$ $t_{rr} = 220 ns$



Features

HiPerFRED[™] Epitaxial Diodes

- fast and soft reverse recovery low switching losses
- avalanche rated
- low leakage current
- ISOPLUS i4-PAC[™] package
- isolated back surface
- low coupling capacity between pins and heatsink
- enlarged creepage towards heatsink
- enlarged creepage between pins
- application friendly pinout
- high reliability
- industry standard outline

Applications

- rectifiers
- high frequency rectifiers, output rectifiers of switched mode power supplies
- mains rectifiers with minimized emission of disturbances
- diodes in snubber networks
- high voltage diodes using the series connection in the component

Rectifier Bridge

Symbol	Conditions	Maximum I	Maximum Ratings	
V _{RRM} ① V _{RRM}		2400 1200	V V	
I _{fav} I _{f(av)m} I _{fsm}	$T_c = 90^\circ$ C; sine 180° $T_c = 90^\circ$ C; d = 0.5 rectangular $T_{VJ} = 25^\circ$ C; t = 10 ms; sine 50 Hz	53 55 500	A A A	
E _{AS}	I_{AS} = 16 A; L_{AS} = 180 µH; T_{C} = 25°C; non repetitive	e 28	mJ	
P _{tot}	$T_{\rm c} = 25^{\circ} C$ (per diode)	200	W	

Symbol		Characteristic Values $(T_{v_i} = 25^{\circ}C, unless otherwise specified)$			
	-	min.	typ.	max.	
V _F	$I_{F} = 40 \text{ A}; T_{VJ} = 25^{\circ}\text{C}$ $T_{VJ} = 125^{\circ}\text{C}$		2.0 1.5	2.5	V V
I _R	$V_{\rm R} = V_{\rm RRM}; T_{\rm VJ} = \begin{array}{c} 25^{\circ}{\rm C} \\ T_{\rm VJ} = 125^{\circ}{\rm C} \end{array}$		1	1	mA mA
l _{RM} t _{rr}	$ \left. \begin{array}{l} I_{_{\rm F}} = 75 \; A; \; di_{_{\rm F}}/dt = -750 \; A/\mu s; \; T_{_{\rm VJ}} = 125^{\circ} C \\ V_{_{\rm R}} = 600 \; V \end{array} \right. $		79 220		A ns
$R_{_{thJC}}$	(per diode)			0.63	K/W

Data according to IEC 60747 and refer to a single diode unless otherwise stated.

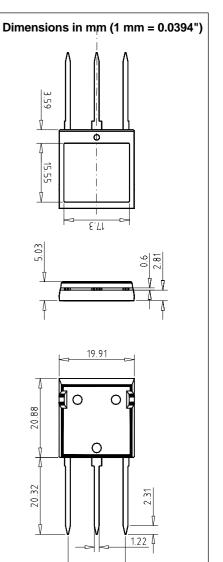
0 Diodes connected in series

Data according to IEC 60747 and refer to a single diode unless otherwise stated. IXYS reserves the right to change limits, test conditions and dimensions.

LIXYS

Component					
Symbol	Conditions	Maximum R	Maximum Ratings		
T _{vj} T _{stg}		-55+150 -55+125	O° O°		
V _{ISOL}	I _{ISOL} ≤ 1 mA; 50/60 Hz	2500	٧~		
F _c	mounting force with clip	20120	Ν		
F _C	mounting force with clip	20120			

Symbol	Conditions	Characteristic Values		
		min.	typ.	max.
C _P	coupling capacity between shorted pins and mounting tab in the case		40	pF
d _s , d _A d _s , d _A	pin - pin pin - backside metal	5.5 5.5		mm mm
R _{thCH}	with heatsink compound		0.15	K/W
Weight			9	g



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