



Standard Rectifier Module

VUB145-16NOXT

URL: <https://www.sxplc.com/standard-rectifier-module-vub145-16noxt>

Product data sheet

Symbol	Definition	Conditions	min.	typ.	max.	Unit	
V_{RSM}	max. non-repetitive reverse blocking voltage	$T_{vj} = 25^{\circ}\text{C}$			1700	V	
V_{RRM}	max. repetitive reverse blocking voltage	$T_{vj} = 25^{\circ}\text{C}$			1600	V	
I_R	reverse current	$V_R = 1600\text{ V}$			100	μA	
		$V_R = 1600\text{ V}$			2	mA	
V_F	forward voltage drop	$I_F = 50\text{ A}$			1.20	V	
		$I_F = 150\text{ A}$			1.68	V	
		$I_F = 50\text{ A}$	$T_{vj} = 125^{\circ}\text{C}$			1.13	V
		$I_F = 150\text{ A}$				1.74	V
I_{DAV}	bridge output current	$T_C = 105^{\circ}\text{C}$ rectangular $d = \frac{1}{3}$			150	A	
V_{FO}	threshold voltage	$T_{vj} = 150^{\circ}\text{C}$			0.87	V	
r_F	slope resistance				5.9	m Ω	
R_{thJC}	thermal resistance junction to case				0.5	K/W	
R_{thCH}	thermal resistance case to heatsink			0.1		K/W	
P_{tot}	total power dissipation	$T_C = 25^{\circ}\text{C}$			250	W	
I_{FSM}	max. forward surge current	$t = 10\text{ ms}; (50\text{ Hz}), \text{ sine}$	$T_{vj} = 45^{\circ}\text{C}$			1.10	kA
		$t = 8,3\text{ ms}; (60\text{ Hz}), \text{ sine}$	$V_R = 0\text{ V}$			1.19	kA
		$t = 10\text{ ms}; (50\text{ Hz}), \text{ sine}$	$T_{vj} = 150^{\circ}\text{C}$			935	A
		$t = 8,3\text{ ms}; (60\text{ Hz}), \text{ sine}$	$V_R = 0\text{ V}$			1.01	kA
I^2t	value for fusing	$t = 10\text{ ms}; (50\text{ Hz}), \text{ sine}$	$T_{vj} = 45^{\circ}\text{C}$			6.05	kA ² s
		$t = 8,3\text{ ms}; (60\text{ Hz}), \text{ sine}$	$V_R = 0\text{ V}$			5.89	kA ² s
		$t = 10\text{ ms}; (50\text{ Hz}), \text{ sine}$	$T_{vj} = 150^{\circ}\text{C}$			4.37	kA ² s
		$t = 8,3\text{ ms}; (60\text{ Hz}), \text{ sine}$	$V_R = 0\text{ V}$			4.25	kA ² s
C_J	junction capacitance	$V_R = 400\text{ V}; f = 1\text{ MHz}$	$T_{vj} = 25^{\circ}\text{C}$		37	pF	

