

Thermal resistance, junction-to-ambient	$R_{\theta JA}$	25	80	$^{\circ}\text{C/W}$
Thermal resistance, junction-to-case	$R_{\theta JC}$	0.88	3.0	$^{\circ}\text{C/W}$
Parameter	Symbol	MIN	TYP	UNIT

Thermal Characteristics

Diode pulse current ₍₅₎	I_{S}^{pulse}	20		A
Continuous diode forward current ₍₁₎	I_S	41		A
Operating and storage temperature range	T^i, T^{stg}	-25 to +120		$^{\circ}\text{C}$
- Derate above 52 $^{\circ}\text{C}$		2.1	15.0	$\text{W}/^{\circ}\text{C}$
Power dissipation ($T^C = 52^{\circ}\text{C}$)	P^D	181	43	W
Avalanche current, repetitive ₍₅₎	I_{AV}	2.5		A
Avalanche energy, repetitive ₍₅₎	E_{AV}	3.0		μJ
Avalanche energy, single pulse ₍₃₎	E_{AS}	120		μJ
Gate-source voltage	V_{GS}	±30		V