

Thermal resistance, junction-to-ambient	$R_{\theta JA}$	85	80	$^{\circ}\text{C/W}$
Thermal resistance, junction-to-case	$R_{\theta JC}$	0.38	3.8	$^{\circ}\text{C/W}$
Parameter	Symbol	MIN/MAX/TYPICAL	MIN	Unit

Thermal Characteristics

Diode pulse current ₍₅₎	I_{S}^{pulse}	80		A
Continuous diode forward current ₍₁₎	I_S	20		A
Operating and storage temperature range	T^o, T^{stg}	-25 to +125		$^{\circ}\text{C}$
- Derate above 52 $^{\circ}\text{C}$		8.5	15.0	$\text{mW}/^{\circ}\text{C}$
Power dissipation ($T^C = 52^{\circ}\text{C}$)	P^D	320	34	W
Avalanche current, repetitive ₍₅₎	I_{AV}	2		A
Avalanche energy, repetitive ₍₅₎	E_{AV}	3.1		μJ
Avalanche energy, single pulse ₍₃₎	E_{AS}	848		μJ
Gate-source voltage	V_{GS}	± 30		V