



# AFGHL50T65SQ

## THERMAL CHARACTERISTICS

Rating	Symbol	Value	Unit
Thermal resistance junction-to-case, for IGBT	$R_{\theta JC}$	0.56	$^{\circ}C/.$
Thermal resistance junction-to-ambient	$R_{\theta JA}$	40	$^{\circ}C/.$

## ELECTRICAL CHARACTERISTICS ( $T_J = 25^{\circ}C$ unless otherwise noted)

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
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### OFF CHARACTERISTICS

Collector-emitter breakdown voltage, gate-emitter short-circuited	$V_{GE} = 0 V,$ $I_C = 1 mA$	$BV_{CES}$	650	-	-	V
Temperature Coefficient of Breakdown Voltage	$V_{GE} = 0 V,$ $I_C = 1 mA$	$\frac{\Delta BV_{CES}}{\Delta T_J}$	-	0.6	-	$V/^{\circ}C$
Collector-emitter cut-off current, gate-emitter short-circuited	$V_{GE} = 0 V,$ $V_{CE} = 650 V$	$I_{CES}$	-	-	250	$\mu$

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## TYPICAL CHARACTERISTICS

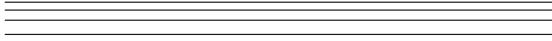


Figure 7. Capacitance Characteristics

Figure 8. Gate Charge

Figure 9. Turn-On Characteristics vs. Gate Resistance

Figure 10. Turn-Off Characteristics vs. Gate Resistance

Figure 11. Turn-On Characteristics vs. Collector Current

Figure 12. Turn-Off Characteristics vs. Collector Current





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