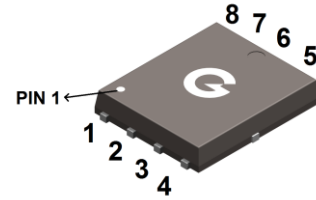


Features

- Lower forward voltage drop
- High surge capability
- Very low leakage
- Halogen free
- Qualified to AEC-Q101 standards for high reliability

HF



PDFN5x6-8L

Mechanical Data

- Case: PDFN5x6-8L
- Molding compound: UL flammability classification rating 94V-0
- Terminals: Tin-plated; solderability per MIL-STD-202, Method 208

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
TMBR30170-5DL8	PDFN5x6-8L	5000 pcs / Tape & Reel	30170

Maximum Ratings (@ T_A = 25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	170	V
Working Peak Reverse Voltage	V _{RWM}	170	V
DC Blocking Voltage	V _R	170	V
Continuous Forward Current	I _F	30	A
Non-Repetitive Peak Surge Current (Sinusoidal Half-wave, 8.3ms)	I _{FSM}	260	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Thermal Resistance Junction-to-Air ^{**1}	R _{θJA}	40	°C/W
Thermal Resistance Junction-to-Case (bottom cathode)	R _{θJC}	1.9	°C/W
Operating Junction Temperature	T _J	-55 ~ +175	°C
Storage Temperature Range	T _{STG}	-55 ~ +175	°C

Electrical Characteristics (@ $T_J = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	$I_F = 15\text{A}, T_J = 25^\circ\text{C}$	-	-	0.85	V
		$I_F = 15\text{A}, T_J = 125^\circ\text{C}$	-	0.7	-	V
		$I_F = 30\text{A}, T_J = 25^\circ\text{C}$	-	-	0.93	V
		$I_F = 30\text{A}, T_J = 125^\circ\text{C}$	-	0.8	-	V
Maximum Peak Reverse Current	I_R	$V_R = \text{Rated } V_{RRM}, T_J = 25^\circ\text{C}$	-	-	10	μA
		$V_R = \text{Rated } V_{RRM}, T_J = 125^\circ\text{C}$	-	-	10	mA
Junction Capacitance	C_J	$V_R = 0\text{V}, T_J = 25^\circ\text{C}, f = 1\text{MHz}$	-	800	-	pF

Notes:

- The data tested by surface mounted on a 1 inch² FR-4 board with 2OZ copper

Ratings and Characteristic Curves (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

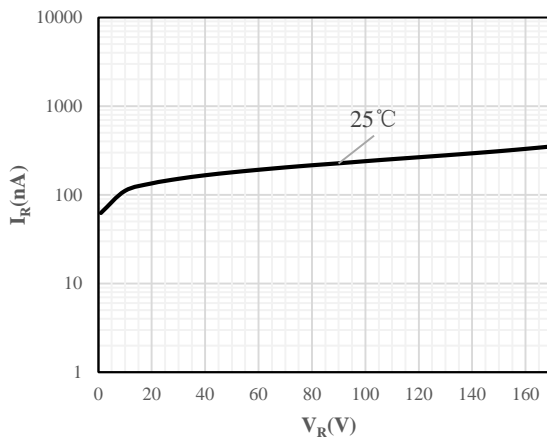


Fig 1 Typical Reverse Characteristic

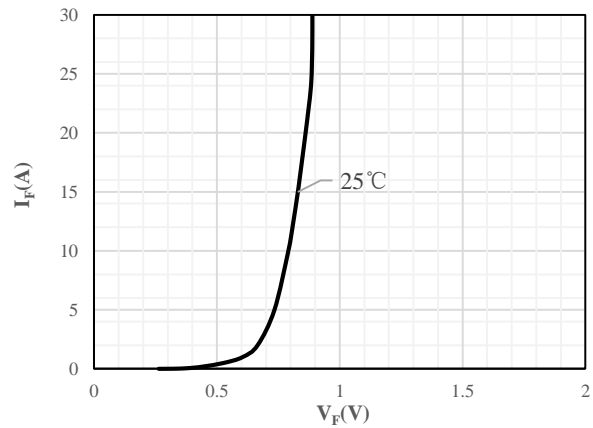


Fig 2 Typical Forward Characteristics

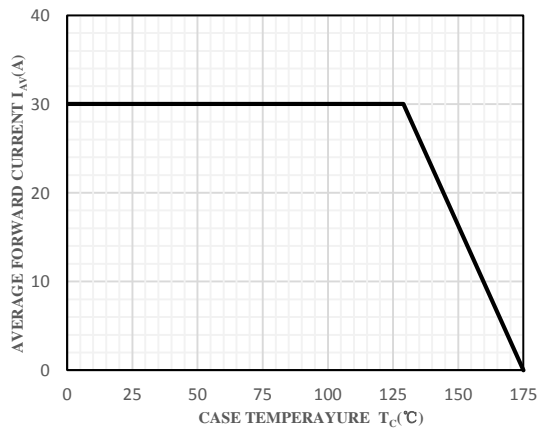
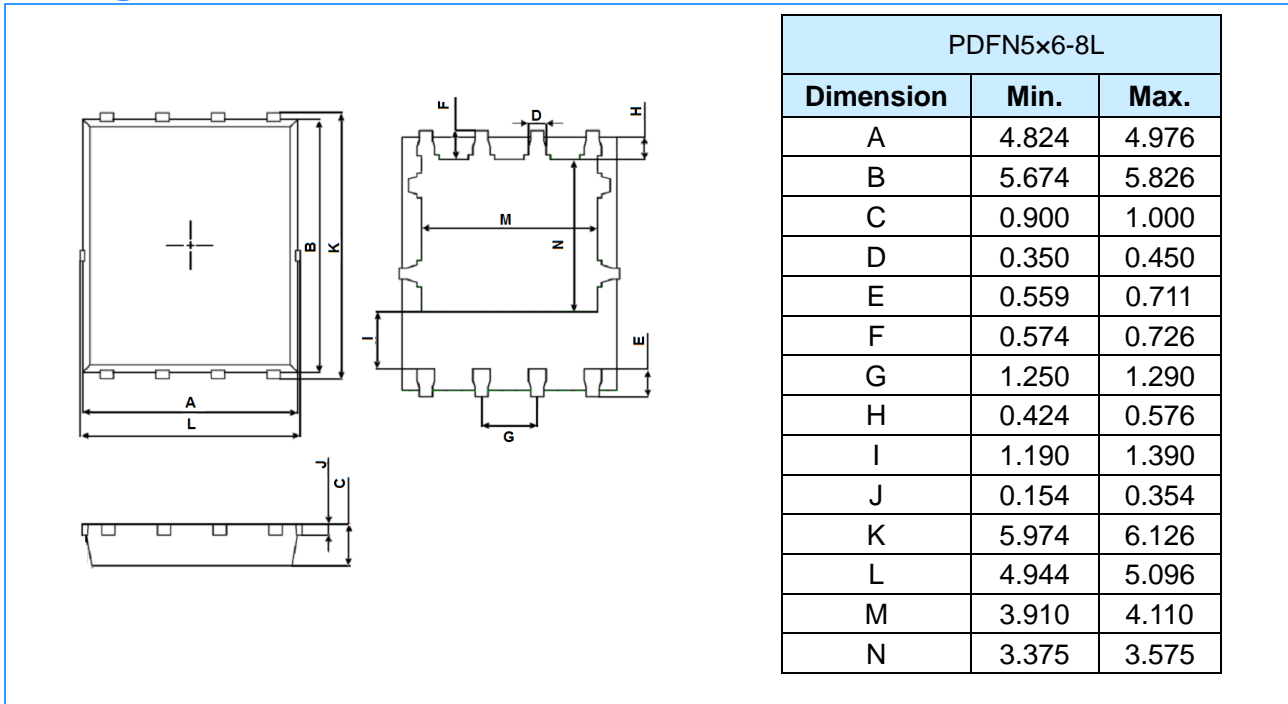
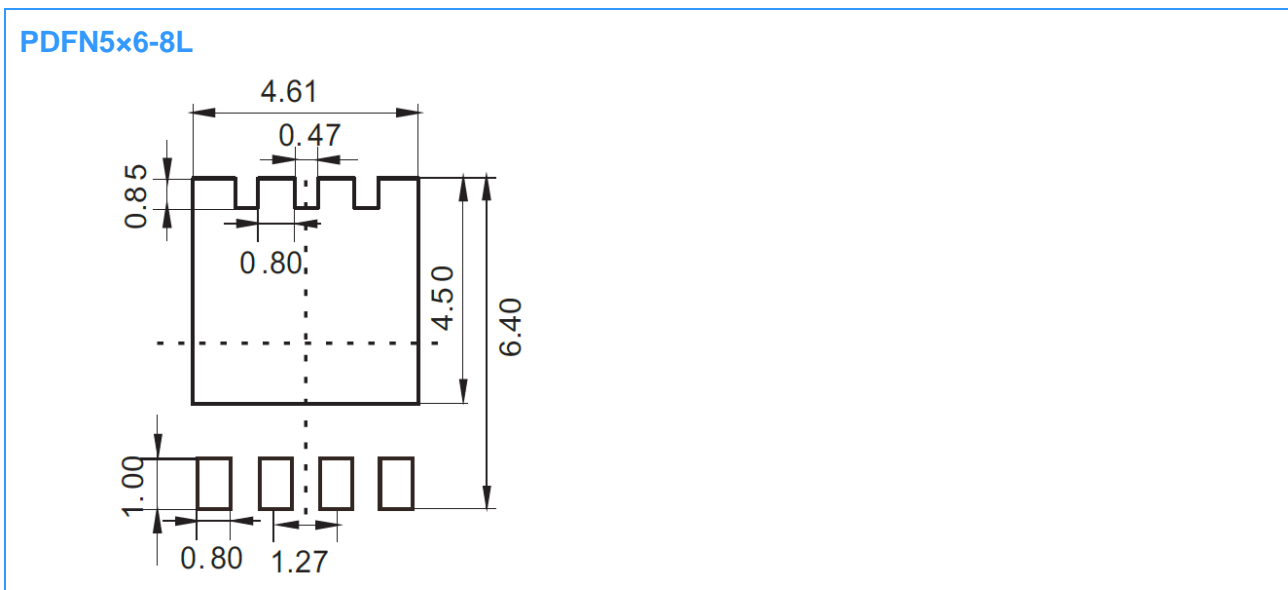


Fig 3 Forward Derating Curve

Package Outline Dimensions (Unit: mm)



Mounting Pad Layout (Unit: mm)



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