

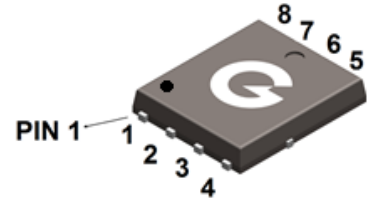
Features

- Low power loss
- High efficiency
- Guardring for stress protection
- Low forward voltage
- Halogen free
- Qualified to AEC-Q101 standards for high reliability

HF

Mechanical Data

- Case: PDFN5×6-8L
- Molding compound: UL flammability classification rating 94V-0
- Terminals: Tin-plated; solderability per MIL-STD-202, Method 208



PDFN5×6-8L

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
TMBR5100-5DL8	PDFN5×6-8L	5000 pcs / Tape & Reel	5100

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

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	100	V
Working Peak Reverse Voltage	V _{RWM}	100	V
DC Blocking Voltage	V _R	100	V
Continuous Forward Current	I _F	5	A
Peak Forward Surge Current (8.3ms single half sine-wave)	I _{FSM}	180	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Thermal Resistance Junction-to-case ^{*2}	R _{θJC}	2.4	°C/W
Operating junction Temperature	T _J	-55 ~ +175	°C
Storage Temperature Range	T _{STG}	-55 ~ +175	°C

Electrical Characteristics (@ T_J = 25°C unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Forward Voltage ^{*1}	V _F	I _F = 5A, T _J = 25°C	-	0.72	0.8	V
		I _F = 5A, T _J = 125°C	-	0.56	-	V
Maximum Peak Reverse Current ^{*1}	I _R	V _R = 100V, T _J = 25°C	-	0.09	3	μA
		V _R = 100V, T _J = 125°C	-	250	-	μA

Note : 1. Pulse Test: Pulse Width = 300 μ s, Duty Cycle $\leq$ 2.0%.
2. Surface mounted on 1 in² pad FR4, $t \leq$ 10 sec

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

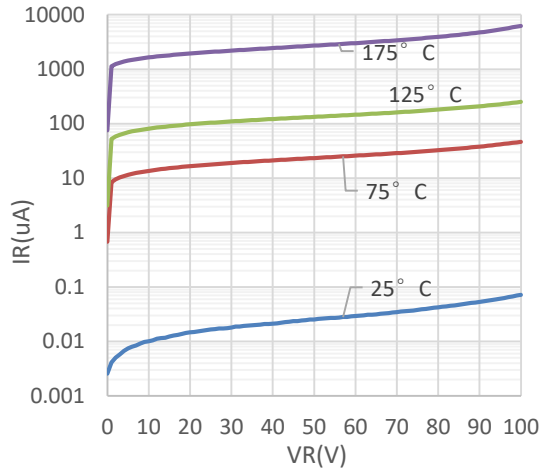


Fig 1 Typical Reverse Characteristic

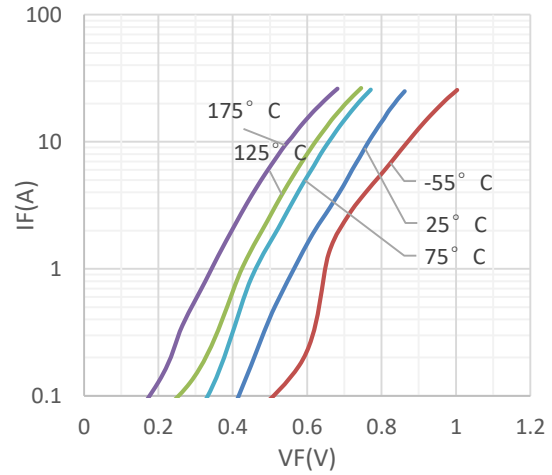


Fig 2 Typical Forward Characteristics

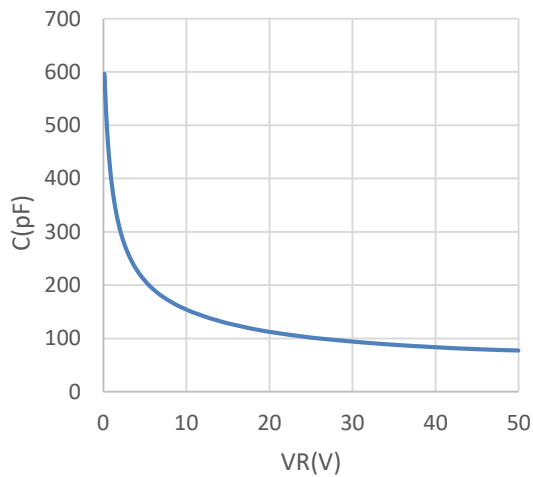
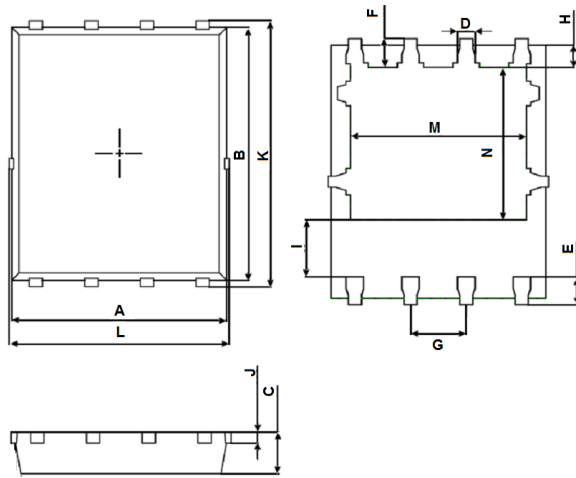


Fig 3 Typical C_J Cure

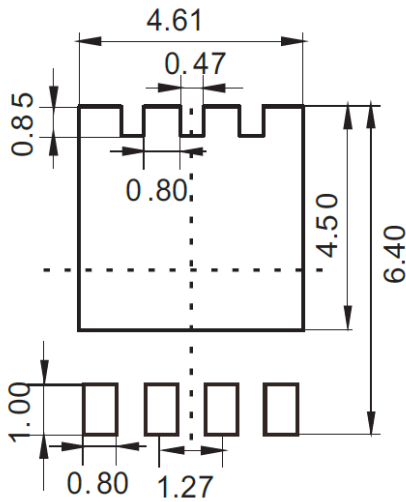
Package Outline Dimensions (Unit: mm)



PDFN5x6-8L		
Dimension	Min.	Max.
A	4.824	4.976
B	5.674	5.826
C	0.900	1.000
D	0.350	0.450
E	0.559	0.711
F	0.574	0.726
G	1.250	1.290
H	0.424	0.576
I	1.190	1.390
J	0.154	0.354
K	5.974	6.126
L	4.944	5.096
M	3.910	4.110
N	3.375	3.575

Mounting Pad Layout (Unit: mm)

PDFN5x6-8L



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