

Nomenclature

A	m^2	Area
C	F	Dynamic junction capacitance
c_p	J/kg K	Specific Heat
d	μm	Substrate thickness
d	m	Diameter
d_c	m	Characteristic diameter
E	GPa	Young Modulus
E_t	eV	Trap energy level in the band gap
E_g	eV	Band gap
g	Ω^{-1}	Transconductance
g	m/s^2	Gravity acceleration
G	GPa	Shear Modulus
h	J/kg	Specific enthalpy
k	GPa	Bulk modulus
L	$\text{cm}^{-2} \text{s}^{-1}$	Luminosity
L	m	Lenght
m	kg	Mass
\dot{m}	kg/s	Mass Flow
\dot{M}	$\text{kg/m}^2 \text{s}$	Mass Flux
N	s^{-1}	Interaction rate
N_C	cm^{-3}	Effective density of states in the conduction band
N_{eff}	cm^{-3}	Effective doping concentration
Nu	-	Nusselt number
p	Pa	Pressure
p^*	-	Reduced pressure
P	W	Power
Pr	-	Prandtl number

Nomenclature

\dot{q}	W/m ²	Heat flux
\dot{Q}	W	Heat load
r_d	m	Relative roughness
R_a	m	Arithmetic roughness
R	s ⁻¹	Event rate
Re	-	Reynolds number
S	ADC counts	Noise
t	GeV ² /c ²	4-squared momentum transfer
t	s	Time
t_{dr}	s	Carrier drift time
T	K	Temperature
V	V	Electric potential
V_{bi}	V	Built-in potential in a junction
W	m	Depletion depth
α	W/m ² K	Heat transfer coefficient
$\bar{\alpha}$	W/m ² K	Mean heat transfer coefficient
γ	K ⁻¹	Coefficient of thermal expansion
ε	-	Hemispherical emissivity
ε	-	Dielectric constant
η	rad	Pseudorapidity
η	%	Charge collection efficiency
η	Pa s	Dynamic viscosity
λ	W m ⁻¹ K ⁻¹	Thermal conductivity
μ	cm ² /V s	Mobility
ξ	-	Friction coefficient
ν	-	Poisson's ratio
v_{th}	m/s	Thermal velocity of charge carriers
ρ	kg/m ³	Density
ρ	-	Ratio of the real to the imaginary parts of the forward amplitude
σ	MPa	Stress
σ	-	Standard deviation
σ	b	Cross section
σ_θ	rad	Beam divergence

Nomenclature

τ	s	Time constant
θ	rad	Angle
Φ	cm ⁻²	Fluence
ω	m/s	Velocity
x	%	Quality factor
q_0	1.602 10 ⁻¹⁹ C	Elementary charge
ϵ_0	8.854 10 ⁻¹⁴ F/cm	Dielectric constant of the vacuum
σ	5.670 10 ⁻⁸ W/m ² K ⁴	Stefan-Boltzmann constant

