

GC6000 SERIES MICROWAVE NOISE DIODES

- Multi-Octave Bandwidth
- Wide Bias Windows
- Uniform Output Response
- Optimized Mesa Geometry
- MIL Grade SiO₂ Passivation
- MIL Spec Reliability

DESCRIPTION

The GC6000 series of RF/Microwave noise diodes represent the state of the art in noise device technology. By carefully controlling junction doping profiles and mesa geometry, these devices provide the broadest, most uniform noise response available. Outputs are true symmetrical gaussian white noise with predictable thermal performance. Choose from dozens of case style, including glass, ceramic as well as EPSM® (enhanced performance surface mount) for commercial pick and place assembly and die form for hybrid systems.

APPLICATIONS

- RF Fuses
- Noise Figure Calibrators
- Signal Path Fade Test Sets
- Spectrum Analyzers
- Noise Sources

P/N	V _b @1mA (Volts)	TYPICAL C _j ¹ (pF)	TYPICAL T _r ² (nS)	FREQUENCY RANGE (GHz)	ENR
GC6001	6-10	0.5	4	.1-18	>25
GC6002	8-14	1.0	7	.1-12	>28
GC6003	12-18	1.5	10	.1-8	>31

1 V_r=6V; 1MHz
2 I_r=10mA, I_f=6mA

GC6000 RF/MICROWAVE NOISE DIODES RECOMMENDED CASE TYPES VERSUS FREQUENCY		
STYLE	EXAMPLE	FREQUENCY
DIE	00, 01, 02	TO > 18 GHz
CERAMIC	17, 30, 79, 84	TO 12 GHz
EPSM	150, 154	TO 6 GHz
EPOXY	152, 128, 127	TO 3 GHz
GLASS AXIAL	11, 15	TO 1 GHz

SEMICONDUCTOR OPERATION

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