

TUNNEL DIODE

Features:

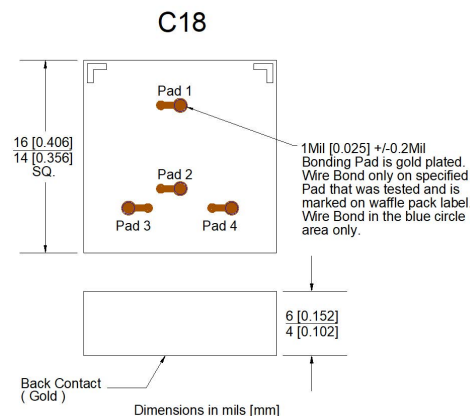
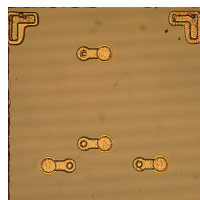
- Tunnel (back) diode, starting material germanium with passivated construction, all contacts are gold plated, bonding contact is a cathode

Application:

- Zero bias operation
- Excellent temperature stability
- Low video Impedance

Absolute Maximum Ratings:

- Operating Temperature -65 °C to +110°C
- Storage Temperature Range -65°C to +125°C
- When assembled in the package, package soldering Time +230°C max. hand solder for 5 seconds.



Electrical Specifications:

Part Number	Ip		Cj	Vf	VR	IP/IV Ratio	RV	γ	Outline
	MIN μA	MAX μA	MAX pF	MAX mV	MIN mV	MIN	TYP Ω	TYP mV/mW	
SMBD1057A-C18	100	125	0.3	135	420	2.5	180	1000	C18
SMBD1057B-C18	125	150	0.3	135	420	2.5	180	1000	C18
SMBD1057C-C18	150	175	0.3	135	420	2.5	180	1000	C18
SMBD1057D-C18	175	200	0.3	135	420	2.5	180	1000	C18
SMBD2057A-C18	200	225	0.3	130	410	2.5	130	750	C18
SMBD2057B-C18	225	250	0.3	130	410	2.5	130	750	C18
SMBD2057C-C18	250	275	0.3	130	410	2.5	130	750	C18
SMBD2057D-C18	275	300	0.3	130	410	2.5	130	750	C18
SMBD3057A-C18	300	325	0.3	125	400	2.5	80	500	C18
SMBD3057B-C18	325	350	0.3	125	400	2.5	80	500	C18
SMBD3057C-C18	350	375	0.3	125	400	2.5	80	500	C18
SMBD3057D-C18	375	400	0.3	125	400	2.5	80	500	C18
SMBD4057A-C18	400	425	0.3	120	400	2.5	65	275	C18
SMBD4057B-C18	425	450	0.3	120	400	2.5	65	275	C18
SMBD4057C-C18	450	475	0.3	120	400	2.5	65	275	C18
SMBD4057D-C18	475	500	0.3	120	400	2.5	65	275	C18
Test Condition			VR=VV F=100MHz	IF=3mA	IR=500μA		PIN=-20dBm RL=10KΩ F=10GHz		

Packaging:

All products listed above are waffle packs in 25 piece increments e.g. (25) twenty-five pieces per waffle pack: using tray #H20-025010-62C02, cover #H20-02A-66C02, clip #H20-04B-67C02, insert paper #H20-001D, or equivalent. On this catalog/list of parts, customers do not have a choice of selecting specific bonding Pads, single wafer lots, or special packing methods. Customers will need to contact the factory for a quote based on a customer's specific requirements. Each waffle pack of 25 pieces has only one bonding Pad that was tested per specification on one wafer lot. Both Pad and lot are marked on the label, for example when a customer orders 75 pieces (3 waffle packs of 25 pieces) they may receive three different bonding Pads and three different wafer lots depends on our available inventory.

Chip assembly Notes:

- Recommended to use 0.7 mil gold wire.
- Tip temperature 165 °C Max.
- Stage temperature 155 °C Max (minimize the stage time)
- Die attached with Silver Epoxy, maximum cure temperature 125 °C