

TECHNICAL DATA  
DATA SHEET 5088, REV A.1

## Small Signal Switching Diode Die

### FEATURES / BENEFITS:

- ✓ Die fabricated on a MIL-PRF-19500 manufacturing line
- ✓ Class H and Class K element evaluation available
- ✓ All ratings are @  $T_A = 25\text{ }^\circ\text{C}$  unless otherwise specified

### ELECTRICAL CHARACTERISTICS:

#### MAXIMUM RATINGS

ALL RATINGS ARE AT  $T_A = 25\text{ }^\circ\text{C}$  UNLESS OTHERWISE SPECIFIED

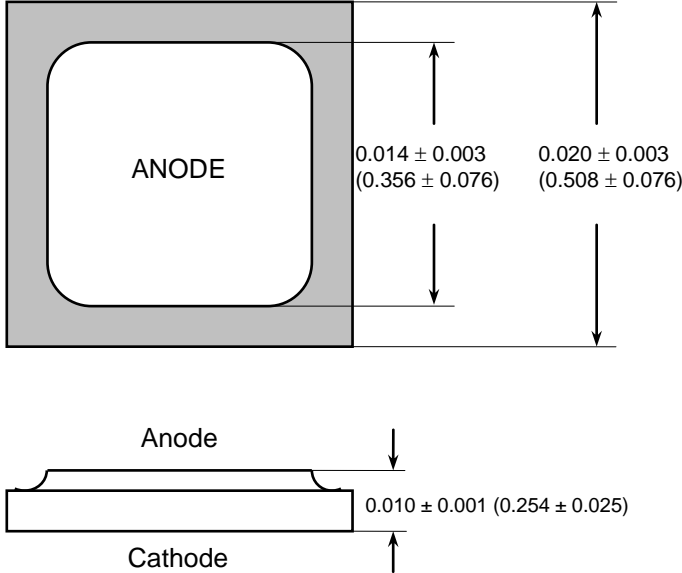
RATING	SYMBOL	MAX.	UNITS
PEAK INVERSE VOLTAGE	PIV	150	V (pk)
WORKING PEAK REVERSE VOLTAGE	$V_{RWM}$	125	V (pk)
MAXIMUM AVERAGE DC OUTPUT CURRENT	$I_O$	150	mA dc
PEAK SINGLE CYCLE SURGE CURRENT ( $t_p = 1\text{ s}$ , half sine wave) ( $t_p = 1\text{ }\mu\text{s}$ , , half sine wave)	$I_{FSM}$	0.5	A (pk)
		4.0	
MAXIMUM OPERATING AND STORAGE TEMPERATURE RANGE	$T_{op, stg}$	-65 to +175	$^\circ\text{C}$

### ELECTRICAL CHARACTERISTICS

CHARACTERISTIC	SYMBOL	MIN.	MAX.	UNITS
FORWARD VOLTAGE DROP	( $I_F = 200\text{ mA dc}$ )	$V_{F1}$	0.83	V dc
	( $I_F = 100\text{ mA dc}$ )	$V_{F2}$	0.79	
	( $I_F = 50\text{ mA dc}$ )	$V_{F3}$	0.74	
	( $I_F = 10\text{ mA dc}$ )	$V_{F4}$	0.65	
	( $I_F = 5\text{ mA dc}$ )	$V_{F5}$	0.60	
	( $I_F = 1\text{ mA dc}$ )	$V_{F6}$	0.52	
REVERSE CURRENT	( $V_R = 125\text{ V dc}$ )	$I_{R1}$	-	$\mu\text{A dc}$
	( $V_R = 125\text{ V dc}$ , $T_A = 150^\circ\text{C}$ )	$I_{R2}$	-	
REVERSE RECOVERY TIME	( $I_F = 10\text{ mA dc}$ , $V_R = 35\text{ V dc}$ )	$t_{rr}$	-	$\mu\text{s}$
JUNCTION CAPACITANCE	( $f = 1\text{ MHz}$ , $V_{sig} = 50\text{ mV p-p}$ , $V_R = 0\text{ V dc}$ )	$C_{JMAX}$	-	pF

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**PACKAGE DIMENSIONS (inches/mm):**



**PART ORDERING INFORMATION:**

**1CXXXX XX X -X**

*Part Number*

**Metal Combinations (blank is Al top/Ag bottom):**

Suffix	Top	Bottom	Part Number
blank	Al	Ag	1C6657
AG	Al	Au	1C6657AG
BB	Ag	Ag	1C6657BB
BG	Ag	Au	1C6657BG
GG	Au	Au	1C6657GG
GB	Au	Ag	1C6657GB

A = Ti (0.3 kA) / Al (25 kA)

B = Ti (1.2 kA) / Ni (1.8 kA) / Ag (30kA)

G = Ti (1.2 kA) / Ni (1.8 kA) / Au (12kA) (**TOP**) / Ti (1.2 kA) / Ni (1.8 kA) / Au (4kA) (**BOTTOM**)

**Quality Level (blank is commercial level):**

Suffix	Part Number	Description
blank	1C6657	Commercial level
H	1C6657H	Class H level
K	1C6657AGK	Class K level Al top/Au bottom

**Polarity (blank is anode top/cathode bottom):**

Suffix	Top	Bottom	Part Number
blank	Anode	Cathode	1C6657
-R	Cathode	Anode	1C6657AGK-R

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