

SGI

Silicon Group Inc.

BLY-53 // C12-12

Silicon NPN power VHF/UHF transistor BLY-53 / C12-12 is designed for large-signal amplifier and multiplier applications in portable and land mobile FM, AM equipment.

Output power: 7 watt
Frequency range: 200-400 MHz
Voltage: 12.6 volt
Package type: 8/32 Helicopter
Common Emitter Configuration
Individual Emitter Resistors
Aluminum Metalization

ELECTRICAL CHARACTERISTICS ($T_{CASE} = 65^{\circ} C$)

SYMBOL	TEST CONDITIONS	VALUE			UNIT
		MIN.	TYP.	MAX.	
P_{OUT}	$f_o = 320 \text{ MHz} / V_{cc} = 12.6 \text{ V} / P_{IN} = 1.4 \text{ W}$	2			W
G_p	$f_o = 320 \text{ MHz} / V_{cc} = 12.6 \text{ V} / P_{OUT} = 7 \text{ W}$	8			dB
λ_c	$f_o = 320 \text{ MHz} / V_{cc} = 12.6 \text{ V} / P_{OUT} = 7 \text{ W}$	60	65		%

ABSOLUTE MAXIMUM RATINGS ($T_{CASE} = 25^{\circ} C$)

Symbol	PARAMETERS	VALUE	UNIT
V_{CER}	Collector - Emitter Voltage, $R_{EB} \leq 100 \Omega$	36	V
V_{EBO}	Emitter - Base Voltage	4	V
I_C	Continuous Collector Current	1	A
P_C	Collector Power Dissipation	11*	W
T_j	Junction Temperature	150	$^{\circ}C$
$R_{th(j-c)}$	Junction-Case Thermal Resistance	10	$^{\circ}C/W$

* For Dynamic Operation, $T_{CASE} = 40^{\circ} C$