

Title (en)  
Switchable bipolar current source.

Title (de)  
Schaltbare bipolare Stromquelle.

Title (fr)  
Source bipolaire de courant commutable.

Publication  
**EP 0226721 A1 19870701 (DE)**

Application  
**EP 86112708 A 19860915**

Priority  
DE 3534830 A 19850930

Abstract (en)  
[origin: US4740743A] A bipolar current source includes a supply voltage source, a first current reflector connected to the supply voltage source and having transistors of one conduction type including input and output transistor configurations, and a second current reflector connected in series with the first current reflector, connected to the supply voltage source and having transistors of the other conduction type including input and output transistor configurations, the output transistor configurations being able to be switched off.

Abstract (de)  
Die schaltbare bipolare Stromquelle enthält die Kombination zweier hintereinander geschalteter konventioneller Stromspiegel (MN1, MN2, MN3; MP1, MP2), die vom entgegengesetzten Typ sind und deren Ausgangstransistoren (MN3, MP2) über Transistorschalter (MN4, MP3, MP4, MN5) wechselweise angesteuert werden, so daß am Ausgang (SA) abhängig vom Schaltzustand (VZ) ein positiver oder negativer Referenzstrom zur Verfügung steht.

IPC 1-7  
**G05F 3/26**

IPC 8 full level  
**G05F 3/24** (2006.01); **G05F 3/26** (2006.01)

CPC (source: EP US)  
**G05F 3/262** (2013.01 - EP US)

Citation (search report)

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- [A] US 3976896 A 19760824 - RYDER ALAN
- [A] US 3611171 A 19711005 - BLACK JOHN C
- [A] PATENTS ABSTRACTS OF JAPAN, Band 8, Nr. 33, 14. Februar 1984, Seite 2 P 254; & JP-A-58 186 817 (NIPPON DENSO K.K.) 31-10-1983
- [A] RCA REVIEW, Band 39, Nr. 2, Juni 1978, Seiten 250-258, Princeton, US; O.H. SCHADE, Jr.: "Advances in BiMOS integrated circuits"
- [A] ELECTRONIC LETTERS, Band 12, Nr. 15, 22. Juli 1976, Seiten 389,390, Herts, GB; B.L. HART et al.: "D.C. matching errors in the Wilson current source"

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Designated contracting state (EPC)  
AT BE CH DE FR GB IT LI LU NL SE

DOCDB simple family (publication)  
**EP 0226721 A1 19870701; EP 0226721 B1 19921125**; AT E82808 T1 19921215; DE 3687161 D1 19930107; JP 2646443 B2 19970827; JP S6279514 A 19870411; US 4740743 A 19880426

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**EP 86112708 A 19860915**; AT 86112708 T 19860915; DE 3687161 T 19860915; JP 23108086 A 19860929; US 91341286 A 19860929